RESEARCH AWARDS

DISTRIBUTION BY SPONSORS
## Extramural Research Awards, 2003-2004

### Distribution by Sponsors

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<th>AGENCY-UNIT</th>
<th>NO. OF AWARDS</th>
<th>AMOUNT</th>
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EXTRAMURAL RESEARCH AWARDS
DISTRIBUTION BY SPONSORS

- Dept. of Defense 24.73%
- DHHS 19.21%
- Dept. of Commerce 9.32%
- NSF 8.01%
- Dept. of Interior 4.84%
- NASA 4.39%
- Agency for Internat'l Dev. 4.29%
- All Non-U.S. 4.21%
- Hawaii- Gov't Agencies 4.18%
- Dept. of Agriculture 4.03%
- All Others (< 4% each) 12.79%
DA-Dept of Agriculture

1. Chu, Pao-Shin  Meteorology - SOEST
"Fire Seasonal Severity Prediction in Hawaii"
07/18/03 - 01/31/04  (Supplement)  $6,000
FROM: DA-Dept of Agriculture

2. Collier, Michael  UHH- Agriculture
"Development of Post Harvest Technologies"
05/29/02 - 05/26/07  (New)  $243,134
FROM: DA-Dept of Agriculture

3. Ferguson, Carol A  Natural Resources & Environmental Mgt
"Economics of Managing Invasive Species in Tropical and Subtropical Areas of the US-Hawaii"
09/15/03 - 09/14/06  (New)  $160,395
FROM: DA-Cooperative State Research Service

4. Grace, J Kenneth  Plant & Environmental Protection Sci
"Management of Formosan Subterranean Termites in Hawaii Through School Campus Based Research and Suppression"
09/30/03 - 07/16/08  (New)  $150,000
FROM: DA-Dept of Agriculture

5. Grace, J Kenneth  Plant & Environmental Protection Sci
"Support of Agriculture Research of Mutual Interest"
09/01/02 - 08/31/03  (Supplement)  $10,000
FROM: DA-Dept of Agriculture

6. Grace, J Kenneth  Plant & Environmental Protection Sci
"Support of Agriculture Research of Mutual Interest"
09/01/03 - 08/31/04  (Renewal)  $8,000
FROM: DA-Dept of Agriculture

7. Grace, J Kenneth  Plant & Environmental Protection Sci
"Support of Agricultural Research of Mutual Interest"
09/01/02 - 08/31/03  (Supplement)  $2,442
FROM: DA-Dept of Agriculture

8. Grace, J Kenneth  Plant & Environmental Protection Sci
"Support of Agricultural Research of Mutual Interest"
09/01/03 - 08/31/04  (Continuation)  $5,000
FROM: DA-Dept of Agriculture

9. Grace, J Kenneth  Plant & Environmental Protection Sci
"Risk Assessment and Integrated Termite Management Strategies for Hawaii and the Pacific Basin"
06/01/04 - 07/15/04  (Continuation)  $116,357
FROM: DA-Dept of Agriculture

10. Grace, J Kenneth  Plant & Environmental Protection Sci
"Support of Agri Research of Mutual Interest"
09/01/03 - 08/31/04  (Supplement)  $12,000
FROM: DA-Dept of Agriculture

11. Grace, J Kenneth  Plant & Environmental Protection Sci
"Support of Agriculture Research of Mutual Interest"
09/01/03 - 08/31/04  (Continuation)  $6,000
FROM: DA-Dept of Agriculture

12. Hashimoto, Andrew  Coll. Trop Ag & Human Res
"Agricultural Postharvest, Value-Added Products and Processing Program"
09/24/02 - 09/29/07  (Supplement)  $243,134
FROM: DA-Dept of Agriculture

13. Hu, John  Plant & Environmental Protection Sci
"Development and Implementation of Environment-Friendly Strategies for Management of Mealybug Wilt of Pineapple"
09/15/03 - 08/14/05  (New)  $186,000
FROM: DA-Dept of Agriculture

14. Hu, John  Plant & Environmental Protection Sci
"Transgenic Citrus Plants with Broad and Durable Resistance to Citrus Tristeza Virus"
09/03/03 - 09/14/04  (New)  $81,663
FROM: DA-Dept of Agriculture

15. Idol, Travis  Natural Resources & Environmental Mgt
"Monitoring of Forest Health in Hawaii's Dry Forest Ecosystem"
08/22/03 - 09/30/04  (New)  $46,000
FROM: DA-Dept of Agriculture

16. Mau, Ronald  Molecular Biosciences & Bioengineering
"Area-wide Integrated Pest Management of Fruit Flies in Hawaiian Fruits & Vegetables (Economics)"
09/30/04 - 07/30/06  (Supplement)  $128,540
FROM: DA-Dept of Agriculture
17. Mau, Ronald  
Plant & Environmental Protection Sci  
"IPM Strategies for Control of Tephritid Fruit Flies that Infest Hawaii Grown Fruits and Vegetables"  
09/28/00 - 09/14/05  (Renewal)  
$541,884 
FROM: DA-Dept of Agriculture

18. Miser, Keith  
UHH- Agriculture  
"Support of Agriculture Research FY 03"  
09/15/03 - 09/14/04  (Continuation)  
$23,400  
FROM: DA-Dept of Agriculture

19. Miser, Keith  
UHH- Agriculture  
"Support of Agriculture Research FY 04"  
09/15/03 - 09/14/04  (New)  
$25,500  
FROM: DA-Dept of Agriculture

20. Miser, Keith  
UHH- Agriculture  
"Support of Agriculture Research FY 03"  
09/15/02 - 09/14/03  (Continuation)  
$4,167  
FROM: DA-Dept of Agriculture

21. Murphy, Suzanne P  
Cancer Research Center  
"Dietary Patterns & Nutritional Adequacy - Does Variety Matter?"  
09/15/02 - 09/30/04  (Supplement)  
$23,030  
FROM: DA-Dept of Agriculture

22. Novotny, Rachel  
Human Nutrition, Food & Animal Sci  
"Healthy Living in Pacific Islands (HLPi) Healthy Pacific Child Program (HPCP)"  
03/01/04 - 02/29/08  (New)  
$1,000,000  
FROM: DA-Dept of Agriculture

23. Roumasset, James A  
Economics  
"Integrating Prevention and Control of Invasive Species: Lessons from Hawaii"  
09/30/04 - 09/30/06  (New)  
$200,000  
FROM: DA-Dept of Agriculture

24. Shintaku, Michael H  
UHH- Plant Pathology  
"Develop GMO Resistant to Viruses"  
09/29/03 - 07/31/08  (New)  
$59,610  
FROM: DA-Dept of Agriculture

25. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Tropical and Subtropical Agricultural Research (TSTAR) Umbrella A: Pest, Plants, and Disease"  
09/15/03 - 09/14/06  (New)  
$671,659  
FROM: DA-Cooperative State Research Service

26. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Tropical and Subtropical Agricultural Research (TSTAR) Umbrella B: Tropical Agriculture"  
09/15/03 - 09/14/06  (New)  
$560,550  
FROM: DA-Cooperative State Research Service

27. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Tropical and Subtropical Agricultural Research (TSTAR) Umbrella C: Tropical Molecular Plant Biology"  
09/15/03 - 09/14/06  (New)  
$604,571  
FROM: DA-Cooperative State Research Service

28. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Tropical and Subtropical Agricultural Research (TSTAR) for Hawaii: Management 2003"  
09/15/03 - 09/14/06  (New)  
$150,872  
FROM: DA-Cooperative State Research Service

29. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Tropical and Subtropical Agricultural Research (TSTAR) Umbrella D: Agricultural Research in the Tropics"  
09/15/03 - 09/14/06  (New)  
$682,671  
FROM: DA-Cooperative State Research Service

30. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Hawaii Floriculture Research Grant - 2003"  
09/15/03 - 09/14/06  (New)  
$371,487  
FROM: DA-Cooperative State Research Service

31. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Hawaii Aquaculture Grant - 2003"  
09/15/03 - 09/14/06  (New)  
$115,161  
FROM: DA-Dept of Agriculture

32. Vincent, Douglas L  
Coli, Trop Ag & Human Res  
"Hawaii Agricultural Diversification 2003 - New Crop/Product Development and Marketing"  
09/15/03 - 09/14/06  (New)  
$118,878  
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**DHHS-Dept of Health & Human Services**

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<td>Psychiatry- MED</td>
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12. Cadman, Edwin C  Pacific Biomed Rsrch Cntr
"Selective Research Excellence in Biomedicine and Health"
09/01/03 - 07/31/04  (Continuation)  $2,428,563
FROM: NIH-Natl Center for Research Resources (NCRR)

13. Cadman, Edwin C  Pacific Biomed Rsrch Cntr
"Supplement for Equipment for AIDS Research"
09/01/03 - 07/31/04  (Supplement)  $199,904
FROM: NIH-Natl Center for Research Resources (NCRR)

14. Chang, Linda  Medicine-MED
"MR Spectroscopy to Monitor HAART in HIV Brain Injury"
05/01/04 - 04/30/05  (New)  $410,918
FROM: NIH-Natl Inst of Neurological Disorders & Stroke

15. Csiszar, Katalin  School of Medicine
"Multiple Functions of Lysyl Oxidase like Proteins"
03/01/04 - 02/28/05  (Continuation)  $340,750
FROM: NIH-Natl Inst of Arth & Musculoskeletal & Skin Disorder

16. Easa, David  School of Medicine
"Center of Clinical Research Excellence"
09/01/03 - 08/31/04  (Continuation)  $1,109,860
FROM: NIH-Natl Center for Research Resources (NCRR)

17. Easa, David  School of Medicine
"A Study of Oral Health Disparities in Adult Asian and Pacific Islanders"
09/01/03 - 08/31/04  (Continuation)  $140,739
FROM: NIH-Natl Inst of Dental & Craniofacial Research

18. Glanz, Karen  Cancer Research Center
"Diffusion of an Effective Skin Cancer Prevention Program"
01/01/04 - 01/31/04  (Continuation)  $6,000
FROM: NIH-Natl Cancer Institute (NCI)

19. Goebert, Deborah  Psychiatry-MED
"Collaborative Alcohol Research Development and Planning"
09/15/03 - 06/30/04  (New)  $316,813
FROM: NIH-Natl Inst of Alcohol Abuse & Alcoholism

20. Goebert, Deborah  Psychiatry-MED
"Collaborative Alcohol Research Development and Planning"
07/01/04 - 06/30/05  (Continuation)  $310,459
FROM: NIH-Natl Inst of Alcohol Abuse & Alcoholism

21. Goodman, Marc T  Cancer Research Center
"Surveillance, Epidemiology and End Results (SEER)"
07/31/03 - 09/30/03  (Supplement)  $153,801
FROM: NIH-Natl Cancer Institute (NCI)

22. Goodman, Marc T  Cancer Research Center
"Surveillance, Epidemiology, and End Results (SEER) Program"
09/30/03 - 09/29/04  (Supplement)  $511,459
FROM: NIH-Natl Cancer Institute (NCI)

23. Goodman, Marc T  Cancer Research Center
"Collaborative Study of Ovarian Cancer in Two Risk Groups"
04/01/04 - 03/31/05  (Continuation)  $492,262
FROM: NIH-Natl Cancer Institute (NCI)

24. Gotay, Carolyn C  Cancer Research Center
"A Pilot Writing Program for Multiethnic Breast Cancer Patients"
05/19/04 - 04/30/05  (Continuation)  $136,300
FROM: NIH-Natl Cancer Institute (NCI)

25. Grandinetti, Andrew  Pacific Biomed Ranch Cntr
"Autonomic Function and Insulin Resistance in a Multiethnic Population"
09/15/03 - 07/31/04  (New)  $279,070
FROM: NIH-Natl Inst of Neurological Disorders & Stroke

26. Hermosura, Meredith C  Pacific Biomed Ranch Cntr
"Characterization of a Novel Metal Ion-Permeable Channel"
05/01/04 - 04/30/05  (Continuation)  $319,783
FROM: NIH-Natl Inst of Neurological Disorders & Stroke

"Immune Pathways as Prerequisites for Adjuvants' Efficacy"
06/01/04 - 05/31/05  (Continuation)  $270,063
FROM: National Institutes of Health

28. Issell, Brian F  Cancer Research Center
"Hawaii Minority-Based CCOP"
06/01/04 - 05/31/05  (Continuation)  $617,830
FROM: NIH-Natl Cancer Institute (NCI)

29. Kolonel, Laurence N  Cancer Research Center
"Epidemiologic Studies of Diet and Cancer in Hawaii"
07/01/03 - 06/30/04  (Continuation)  $2,823,048
FROM: NIH-Natl Cancer Institute (NCI)
30. Kolonel, Laurence N  
Cancer Research Center  
"Multiethnic Cohort Study of Diet and Cancer"  
03/01/04 - 02/28/05 (Continuation)  
FROM: NIH-Natl Cancer Institute (NCI)  
$2,136,335

31. Laws, Edward A  
Sch Ocean,Earth Sci & Tec  
"Pacific Research Center for Marine Biomedicine"  
02/16/04 - 12/31/04 (New)  
FROM: NIH-Natl Inst of Environmental Health Sciences  
$488,000

32. Le Marchand, Loic  
Cancer Research Center  
"Hawaii Colorectal Cancer Family Registry"  
07/01/03 - 06/30/04 (Continuation)  
FROM: NIH-Natl Cancer Institute (NCI)  
$809,462

33. Le Marchand, Loic  
Cancer Research Center  
"Genes, Diet and Carcinogen Activation in Smokers"  
09/01/03 - 08/31/04 (Continuation)  
FROM: NIH-Natl Cancer Institute (NCI)  
$766,938

34. Lorenzo, Patricia S  
Cancer Research Center  
"Regulation of Tumor Promotion by RasGRP1"  
09/02/03 - 07/31/04 (Continuation)  
FROM: NIH-Natl Cancer Institute (NCI)  
$272,941

35. Lozanoff, Scott  
Anatomy- MED  
"Gene Discovery in Heritable Renal Hypoplasia"  
08/01/03 - 05/31/04 (New)  
FROM: NIH-Natl Inst of Diabetes, Digestive, Kidney (NIDDKD)  
$238,009

36. Lozanoff, Scott  
Anatomy- MED  
"Gene Discovery in Heritable Renal Hypoplasia"  
06/01/04 - 05/31/05 (Continuation)  
FROM: NIH-Natl Inst of Diabetes, Digestive, Kidney (NIDDKD)  
$171,507

37. Lu, Yuanan  
Pacific Biomed Rsrch Cntr  
"Development of Gene Transfer Approaches for NeuroAIDS"  
08/01/03 - 07/31/04 (Continuation)  
FROM: NIH-Natl Inst of Neurological Disorders & Stroke  
$287,367

38. Marikawa, Yusuake  
Anatomy- MED  
"Body Plan Formation in Early Mouse Embryo"  
05/01/04 - 04/30/05 (Continuation)  
FROM: NIH-Natl Inst of Child Health & Human Devlpmt  
$184,005

39. Mark, Gregory Y  
Psychiatry- MED  
"Asian/Pacific Islander Youth Violence Prevention Center"  
09/30/03 - 09/29/04 (Continuation)  
FROM: PHS-Centers for Disease Control (CDC)  
$1,008,563

40. Maskarinec, Gertraud  
Cancer Research Center  
"Breast Density, IGF-I, & Prolactin in Four Populations"  
09/27/03 - 09/31/04 (New)  
FROM: NIH-Natl Cancer Institute (NCI)  
$68,150

41. Maskarinec, Gertraud  
Cancer Research Center  
"Supplement to Support BANGEO for Effects of Soy on Estrogens and Mammary Densitometry"  
07/01/03 - 06/30/04 (Supplement)  
FROM: NIH-Natl Cancer Institute (NCI)  
$13,346

42. Mau, Marjorie K  
Medicine- MED  
"Partnership for Diabetes Related Disparities in Hawaii"  
09/30/03 - 09/29/04 (Continuation)  
FROM: NIH-Natl Center for Minority Health Disparities  
$1,093,656

43. Michaud, Jon-Pierre  
UHH - MISC  
"Big Island Asthma Pilot Study Mod 7"  
09/30/03 - 09/29/04 (New)  
FROM: DHHS-Dept of Health & Human Services  
$120,000

44. Murakata, Miles Y  
Cancer Research Center  
"Quality of Life in Testis Cancer Survivors"  
09/27/03 - 09/31/04 (New)  
FROM: NIH-Natl Cancer Institute (NCI)  
$68,150

45. Murphy, Suzanne P  
Cancer Research Center  
"Evaluating Errors in Reported Use of Dietary Supplements"  
05/01/04 - 04/30/05 (New)  
FROM: NIH-Natl Cancer Institute (NCI)  
$258,579

46. Nerurkar, Vivek R  
Pacific Biomed Rsrch Cntr  
"Genetic Determinants of JC Virus Replication and Pathogenicity"  
09/01/03 - 08/31/04 (Continuation)  
FROM: NIH-Natl Inst of Neurological Disorders & Stroke  
$316,387

47. Nerurkar, Vivek R  
School of Medicine  
"Pathogenesis of Progressive Multifocal Leuкоencephalopathy: Mechanisms Underlying Interaction of Host and JC Virus Proteins"  
01/28/04 - 03/31/04 (New)  
FROM: NIH-Natl Inst of Neurological Disorders & Stroke  
$7,833
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<td>&quot;Activated Immune Parameters Associated with HIV and Aging&quot;</td>
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<td>&quot;Flavonoids in the Amelioration of Hypertriglyceridemia&quot;</td>
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66. Wada, Randal
Cancer Research Center
"Regulation of the N-myc Oncogene in Neuroblastoma"
12/01/03 - 11/30/04 (Continuation) $226,599
FROM: NIH-Natl Inst of Neurological Disorders & Stroke

67. Ward, W Steven
Anatomy- MED
"Importance of the Sperm Nuclear Matrix for Embryogenesis"
01/01/04 - 12/31/04 (Continuation) $248,862
FROM: NIH-Natl Inst of Child Health & Human Devlpmt

68. Yanagihara, Richard T
Pediatrics- MED
"Pacific Center for Emerging Infectious Diseases Research"
09/30/03 - 06/30/04 (New) $1,936,240
FROM: NIH-Natl Center for Research Resources (NCRR)

DOC-Dept of Commerce

1. Annamalai, H
JIMAR - SOEST
"Warm Pool Dynamics in the interaction Between Asian Summer Monsoon and ENSO"
10/01/03 - 09/30/04 (Supplement) $42,100
FROM: DOC-National Oceanic & Atmospheric Administration

2. Au, Whitlow
Haw Inst Marine Bio-SOEST
"Broadband Sonar Identification of Hawaiian Bottom Fish Species"
07/01/03 - 12/31/04 (New) $128,155
FROM: DOC-National Oceanic & Atmospheric Administration

3. Bowen, Brian
Haw Inst Marine Bio-SOEST
"Loggerhead Stock Definition and Mixed Stock Analysis for the Southeastern United States"
07/01/03 - 12/31/03 (New) $8,451
FROM: DOC-Natl Marine Fisheries Service

4. Businger, Steven
JIMAR - SOEST
"Development of a Real-Time Precipitable Water Capability Using the Global Positioning System"
06/01/03 - 05/31/04 (Supplement) $10,000
FROM: DOC-National Oceanic & Atmospheric Administration

5. Grau, E Gordon
Sea Grant - SOEST
"Development of Tilapia and Ornamental Clam Aquaculture Industries in American Samoa"
08/01/03 - 08/31/05 (New) $100,000
FROM: DOC-National Oceanic & Atmospheric Administration

6. Grau, E Gordon
Sea Grant - SOEST
"Sea Grant Institutional Proposal 2003-2005"
03/01/04 - 08/31/05 (Continuation) $1,880,000
FROM: DOC-National Oceanic & Atmospheric Administration

7. Hamnett, Michael P
Social Science Rsrch Inst
"Hawaii Coral Reef Initiative Research Program, Phase VI"
07/01/03 - 12/31/04 (New) $963,400
FROM: DOC-National Oceanic & Atmospheric Administration

8. Helsley, Charles E
Sea Grant - SOEST
"HOBAP III Environmental Monitoring"
09/01/03 - 08/31/04 (Continuation) $60,000
FROM: DOC-National Oceanic & Atmospheric Administration

9. Jin, Fei-Fei
JIMAR - SOEST
"A Study of Decadal Ocean-Atmosphere Interaction in the Atlantic"
07/01/03 - 06/30/04 (Supplement) $92,376
FROM: DOC-National Oceanic & Atmospheric Administration

10. Jin, Fei-Fei
JIMAR - SOEST
"Dynamics of Pacific Decadal Climate Variability and ENSO Modulation"
07/01/02 - 06/30/03 (Supplement) $63,275
FROM: DOC-National Oceanic & Atmospheric Administration

11. Jokiel, Paul L
Haw Inst Marine Bio-SOEST
"Continuation of Cooperative Agreement for Coral Reef Mapping and Monitoring Efforts in the Pacific Islands"
07/01/03 - 06/30/06 (Continuation) $56,293
FROM: DOC-National Oceanic & Atmospheric Administration

12. Kelley, Christopher D
HURL - SOEST
"A Survey of Bottomfish Habitat in the Kukiolewa Island Reserve: Defining a Benchmark for the State of Hawaii's Restricted Fishing Areas"
08/01/02 - 12/31/03 (New) $218,788
FROM: DOC-Western Pacific Region Fisheries Mgmt Cncl

13. Kelley, Christopher D
HURL - SOEST
"The Impact of Bottomfishing on the Rata and West St. Rogatien RPAs in the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve"
07/01/03 - 11/30/03 (New) $183,376
FROM: DOC-National Oceanic & Atmospheric Administration

14. Leung, Ping S
JIMAR - SOEST
"Modeling Longline Effort Dynamics and Protected Species Interaction"
01/01/04 - 12/31/04 (Supplement) $125,708
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<td>&quot;Establishment of a Data and Research Center for Climate Studies&quot;</td>
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<td>&quot;Transition from Experimental Climate Prediction to Operational Climate Forecasting &amp; Information Services for the U.S. Affiliated Pacific Islands&quot;</td>
<td>07/01/03</td>
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<td>&quot;Evaluating Biochemical and Physiological Predictors of Long Term Survival in Released Pacific Blue Marlin Tagged with Pop-Up Satellite Archival...&quot;</td>
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47. Sibert, John R  JIMAR - SOEST
"Incorporating Oceanographic Data in Stock Assessments of Blue
Sharks and Other Species Incidentally Caught in the Hawaii-Based
Longline Fishery"
01/01/04 - 12/31/04  (Supplement)  $82,400
FROM: DOC-National Oceanic & Atmospheric Administration

48. Sibert, John R  JIMAR - SOEST
"Trophic Structure and Tuna Movement in the Cold Tongue-Warm Pool
Pelagic Ecosystem of the Equatorial Pacific"
01/01/04 - 12/31/04  (Supplement)  $146,385
FROM: DOC-National Oceanic & Atmospheric Administration

49. Sibert, John R  JIMAR - SOEST
"Comparisons of Catch Rates for Target and Incidentally Taken Fishes
in Widely Separated Areas of the Pacific Ocean"
01/01/04 - 12/31/04  (Supplement)  $101,605
FROM: DOC-National Oceanic & Atmospheric Administration

50. Sibert, John R  JIMAR - SOEST
"Causes of Rapid Declines in World Billfish Catch Rates"
01/01/04 - 12/31/04  (Supplement)  $57,665
FROM: DOC-National Oceanic & Atmospheric Administration

51. Smith, Celia M  Botany
"Exploration of Deep-water Macroalgal Meadows in the Main Hawaiian
Islands"
06/01/04 - 07/31/05  (New)  $50,000
FROM: DOC-National Oceanic & Atmospheric Administration

52. Smith, Celia M  Botany
"Nuisance Algal Blooms in Coastal Maui: Assessment and Integration of
Physical Factors and Biological Processes"
02/01/04 - 01/31/05  (Continuation)  $306,536
FROM: DOC-National Oceanic & Atmospheric Administration

53. Smith, Craig R  Oceanography - SOEST
"Submarine Canyon and Scavenger Communities in the Main and
Northwest Hawaiian Islands"
07/01/03 - 06/30/04  (New)  $93,000
FROM: DOC-National Oceanic & Atmospheric Administration

54. Wang, Bin  JIMAR - SOEST
"Interdecadal and Biennial Variability of ENSO: Impacts of Mean States
and Tropical-Extratropical Interaction"
07/01/02 - 06/30/03  (Supplement)  $102,280
FROM: DOC-National Oceanic & Atmospheric Administration

55. Wang, Bin  JIMAR - SOEST
"Remote Forcing on the US Warm Season Rainfall and the Eastern
Pacific Climate"
01/01/03 - 12/31/03  (Renewal)  $123,700
FROM: DOC-National Oceanic & Atmospheric Administration

56. Willis, John C  HURL - SOEST
"Submersible Support for "Voyage Discovery in the Pacific Ocean"
06/30/03 - 09/30/03  (New)  $1,200,000
FROM: DOC-National Oceanic & Atmospheric Administration

57. Willis, John C  HURL - SOEST
"Submersible Support for "Voyage Discovery in the Pacific Ocean"
12/15/03 - 12/31/03  (Supplement)  $47,965
FROM: DOC-National Oceanic & Atmospheric Administration

58. Xie, Shang-Ping  JIMAR - SOEST
"Roles of Ocean-Atmosphere-Land Interaction in Shaping Tropical
Atlantic Variability"
07/01/03 - 06/30/04  (Supplement)  $84,990
FROM: DOC-National Oceanic & Atmospheric Administration

59. Xie, Shang-Ping  JIMAR - SOEST
"Effects of the Andes on the Eastern Pacific Climate"
01/01/03 - 12/31/03  (Supplement)  $95,000
FROM: DOC-National Oceanic & Atmospheric Administration

DOD-Dept of Defense

1. Cheung, Kwok F  Ocean & Resources Engineering - SOEST
"Environment for Design of Advanced Marine Vehicles and Operations
Research - ENDEAVOR"
04/22/04 - 06/30/05  (Continuation)  $2,419,000
FROM: DOD-Dept of Navy

2. Clarke, Antony D  Oceanography - SOEST
"Sea-salt Aerosol Fluxes from Breaking Waves and Bursting Bubbles:
Microphysical, Optical and Spatial Evolution in a Natural Wind-Tunnel"
03/01/04 - 02/28/06  (New)  $100,000
FROM: DOD-Dept of Navy

3. Flament, Pierre J  Oceanography - SOEST
"Adriatic Mesoscale Experiment (AMEX): HF Radar and Remote
Sensing of Surface Currents, Winds and Temperature"
07/10/03 - 12/31/04  (Supplement)  $80,000
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21. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
08/27/03 - 09/30/04 (Supplement) $25,000
FROM: DOD-Dept of Air Force

22. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
08/22/03 - 09/30/04 (Renewal) $111,077
FROM: DOD-Dept of Air Force

23. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
09/01/03 - 09/30/04 (Supplement) $1,380,000
FROM: DOD-Dept of Air Force

24. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
09/24/03 - 09/30/04 (Supplement) $920,000
FROM: DOD-Dept of Air Force

25. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
09/24/03 - 09/30/05 (Renewal) $80,000
FROM: DOD-Dept of Air Force

26. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
09/29/03 - 09/30/05 (Supplement) $287,803
FROM: DOD-Dept of Air Force

27. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
11/04/03 - 09/30/05 (Supplement) $20,000
FROM: DOD-Dept of Air Force

28. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
02/06/04 - 09/30/04 (Supplement) $1,660,000
FROM: DOD-Dept of Air Force

29. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
11/26/03 - 09/30/05 (Continuation) $850,000
FROM: DOD-Dept of Air Force

30. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
11/26/03 - 09/30/04 (Continuation) $105,000
FROM: DOD-Dept of Air Force

31. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
11/28/03 - 09/30/05 (Continuation) $210,000
FROM: DOD-Dept of Air Force

32. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
10/01/03 - 09/30/04 (Supplement) $542,982
FROM: DOD-Dept of Air Force

33. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
09/18/02 - 09/30/03 (Supplement) $735,985
FROM: DOD-Dept of Air Force

34. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
12/29/03 - 09/30/04 (Supplement) $1,501,818
FROM: DOD-Dept of Air Force

35. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
12/30/03 - 09/30/05 (Supplement) $372,600
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36. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
02/06/04 - 09/30/05 (Supplement) $480,003
FROM: DOD-Dept of Air Force

37. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
02/05/04 - 09/30/04 (Supplement) $419,997
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38. Lassner, David K Info Technology Services
"Operations and Management of the Maui Supercomputing Center"
03/02/04 - 09/30/05 (Supplement) $90,000
FROM: DOD-Dept of Air Force
39. Lassner, David K  Info Technology Services
   "Operations and Management of the Maui Supercomputing Center"
   03/08/04 - 09/30/05  (Supplement) $4,220,099
   FROM: DOD-Dept of Air Force

40. Lassner, David K  Info Technology Services
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41. Lassner, David K  Info Technology Services
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   04/09/04 - 09/30/05  (Continuation) $10,000
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42. Lassner, David K  Info Technology Services
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43. Lassner, David K  Info Technology Services
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44. Lassner, David K  Info Technology Services
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   FROM: DOD-Dept of Air Force

45. Lassner, David K  Info Technology Services
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   FROM: DOD-Dept of Air Force

46. Lassner, David K  Info Technology Services
   "Operations and Management of the Maui Supercomputing Center"
   05/11/04 - 09/30/05  (Continuation) $262,500
   FROM: DOD-Dept of Air Force

47. Lassner, David K  Info Technology Services
   "Operations and Management of the Maui Supercomputing Center"
   05/03/04 - 05/31/05  (Supplement) $68,000
   FROM: DOD-Dept of Air Force

48. Lassner, David K  Info Technology Services
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49. Lassner, David K  Info Technology Services
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   05/01/04 - 04/30/05  (Supplement) $566,500
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50. Lassner, David K  Info Technology Services
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51. Lassner, David K  Info Technology Services
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   09/04/04 - 06/30/05  (Supplement) $620,218
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52. Lassner, David K  Info Technology Services
   "Operations and Management of the Maui Supercomputing Center"
   09/10/04 - 09/30/05  (Supplement) $666,435
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53. Lassner, David K  Info Technology Services
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54. Lassner, David K  Info Technology Services
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55. Lassner, David K  Info Technology Services
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   06/18/04 - 09/30/05  (Supplement) $3,000
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56. Lassner, David K  Info Technology Services
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<td>59</td>
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<td>&quot;Hyperspectral Testbed Validation Testing&quot;</td>
<td>Lucey, Paul</td>
<td>04/27/04 - 04/01/05</td>
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<td>65</td>
<td>Haw Inst Geophys &amp; Planet</td>
<td>&quot;Elastic Properties of Advanced Superhard Thin Films by Surface Brillouin Scattering: Effects of Composition, Structure and P-T Environments&quot;</td>
<td>Manghnani, Murli H</td>
<td>07/02/03 - 06/30/04</td>
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<td>&quot;Equations of State of WC, TiB2 and Related Advanced Ceramics: Phase 3&quot;</td>
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<td>10/15/03 - 12/31/04</td>
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<td>Oceanography - SOEST</td>
<td>&quot;Quantification of the Interacting Physical, Biological, Optical and Chemical Properties of Thin Layers in the Sea&quot;</td>
<td>McManus, Margaret Anne</td>
<td>03/01/04 - 01/31/07</td>
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<td>&quot;Dynamics of Internal Tides and Near-Inertial Internal Waves&quot;</td>
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<td>&quot;FY03 Supplement to: Hearing and Temporary Threshold Shifts in Dolphins and Whales&quot;</td>
<td>Nachtigall, Paul E</td>
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<td>Nachtigall, Paul E</td>
<td>03/19/04 - 11/30/04</td>
<td>(Supplement)</td>
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74. Nachtigall, Paul E  
Haw Inst Marine Bio-SOEST  
"FY03 Supplement to: Hearing and Temporary Threshold Shifts in Dolphins and Whales"  
04/22/04 - 09/30/04  
(Supplement)  
$451,005  
FROM: DOD-Dept of Navy

75. Pawlak, Eugene  
Ocean & Resources Engineering - SOEST  
"Wave Boundary Layer Processes over an Irregular Bottom"  
11/06/03 - 04/30/06  
(Continuation)  
$199,588  
FROM: DOD-Dept of Navy

76. Ray, Chittaranjan  
Water Resource Research  
"Evaluation of Leachate Production at the Alternate Cap Site at the MBH Landfill Site to Support the Future Closure Plan"  
04/23/04 - 11/30/04  
(New)  
$22,914  
FROM: DOD-Naval Facilities Engineering

77. Rocheleau, Richard E  
Haw Nat Energy Inst-SOEST  
"Hawaii Energy and Environmental Technologies (HEET) Initiative - Phase 4"  
06/15/04 - 09/30/05  
(Continuation)  
$2,895,000  
FROM: DOD-Dept of Navy

78. Sharma, Sangita  
Cancer Research Center  
"Is Disparity in Prostate Cancer Rates Between African Americans and Whites Associated with Well-done Meat Consumption and NAT1 and NAT2 Acetylators..."  
02/01/04 - 02/28/07  
(New)  
$420,919  
FROM: DOD-Dept of Defense

79. Tricas, Timothy  
Haw Inst Marine Bio-SOEST  
"Neurosensor Control of Locomotor Movements in Free-Swimming Sharks"  
06/21/04 - 06/20/05  
(New)  
$520,678  
FROM: DOD-Advanced Research Project Agency

80. Wang, Bin  
Meteorology - SOEST  
"Dynamical Control of Rapid Tropical Cyclone Intensification by Environmental Shears"  
02/17/04 - 03/31/05  
(Continuation)  
$90,000  
FROM: DOD-Dept of Navy

81. Wang, Bin  
Meteorology - SOEST  
"Dynamical Control of Rapid Tropical Cyclone Intensification by Environmental Shears"  
02/04/04 - 03/31/05  
(Continuation)  
$59,000  
FROM: DOD-Dept of Navy

82. Wilkens, Roy H  
Haw Inst Geophys & Planet  
"The Role of Bottom Variability in Mine Burial Prediction"  
10/30/03 - 12/31/05  
(Continuation)  
$87,041  
FROM: DOD-Dept of Navy

83. Wilkens, Roy H  
Haw Inst Geophys & Planet  
"The Role of Bottom Variability in Mine Burial Prediction"  
06/07/04 - 12/31/05  
(Continuation)  
$77,118  
FROM: DOD-Dept of Navy

84. Wilkens, Roy H  
Haw Inst Geophys & Planet  
"The Role of Bottom Variability in Mine Burial Prediction"  
06/07/04 - 12/31/05  
(Continuation)  
$1,027  
FROM: DOD-Dept of Navy

85. Yuh, Junki  
Mechanical Engineering  
"Development of a Semi-Autonomous Underwater Vehicle for Intervention Missions (SAUVIM)"  
06/01/03 - 01/31/05  
(Continuation)  
$830,000  
FROM: DOD-Dept of Navy

DOE-Dept of Energy

1. Brooks, Benjamin  
Haw Inst Geophys & Planet  
"Collaborative Research: Ground Truth of African and Eastern Mediterranean Shallow Seismicity Using SAR Interferometry and Gibbs Sampling Inversion"  
12/24/03 - 03/16/06  
(New)  
$361,000  
FROM: DOE-Dept of Energy

2. Christopher, David A  
Molecular Biosciences & Bioengineering  
"Defining the Blue Light Signaling Pathways Regulating Photosynthetic Gene Expression in Plant Chloroplasts"  
08/15/03 - 07/14/04  
(New)  
$103,803  
FROM: DOE-Dept of Energy

3. Jensen, Craig M  
Chemistry  
"Catalytically Enhanced Hydrogen Storage Systems"  
03/23/04 - 09/30/04  
(Continuation)  
$110,232  
FROM: DOE-Dept of Energy

4. Jensen, Craig M  
Chemistry  
"Catalytically Enhanced Hydrogen Storage Systems"  
02/02/04 - 09/30/04  
(New)  
$9,768  
FROM: DOE-Dept of Energy
5. Kaiser, Ralf I  
Chemistry  
"Investigating the Chemical Dynamics of Bimolecular Reactions of Dicarbon and Tricarbon Molecules with Hydrocarbons in Combustion Flames"  
07/15/03 - 07/14/04  
(New)  
$167,243  
FROM: DOE-Dept of Energy

6. Kaiser, Ralf I  
Chemistry  
"Investigating the Chemical Dynamics of Bimolecular Reactions of Dicarbon and Tricarbon Molecules with Hydrocarbons in Combustion Flames"  
07/15/04 - 07/14/05  
(Continuation)  
$69,561  
FROM: DOE-Dept of Energy

7. Olsen, Stephen L  
Physics & Astronomy  
"Research in High Energy Physics"  
01/01/04 - 11/30/04  
(Renewal)  
$1,595,000  
FROM: DOE-Dept of Energy

8. Olsen, Stephen L  
Physics & Astronomy  
"Research in High Energy Physics"  
07/15/03 - 11/30/03  
(Continuation)  
$112,617  
FROM: DOE-Dept of Energy

DOI-Dept of the Interior

1. Birkeland, Charles  
Hawaii Coop Fishery  
"Ameliorating Coral Mortality in NPSA During Global Warming"  
09/15/03 - 05/30/04  
(New)  
$30,000  
FROM: DOI-Geological Survey

2. Birkeland, Charles  
Hawaii Coop Fishery  
"Extrinsic and Intrinsic Factors Affecting the Resilience of Corals to Climate Change, and their Use in Designing Marine Reserves"  
05/26/04 - 12/31/04  
(New)  
$141,000  
FROM: DOI-Geological Survey

3. Birkeland, Charles  
Hawaii Coop Fishery  
"Ameliorating Coral Mortality in NPSA During Global Warming"  
06/08/04 - 09/30/05  
(Supplement)  
$21,513  
FROM: DOI-Geological Survey

4. Duffy, David  
Botany  
"Investigating Ecological Impacts of the Kaili Pheasant"  
03/01/03 - 12/31/04  
(New)  
$15,768  
FROM: DOI-Nat'l Park Service

5. Duffy, David  
Botany  
"Cultural Resources Studies: Island of Hawaii; Phase 4"  
09/10/03 - 09/22/05  
(Continuation)  
$263,940  
FROM: DOI-Nat'l Park Service

6. Duffy, David  
Botany  
"Ola'a Kilaauea Project, Phase 7"  
05/01/03 - 12/31/04  
(Continuation)  
$100,000  
FROM: DOI-Fish & Wildlife

7. Duffy, David  
Botany  
"Preventing Invasive Alien Species: Disseminating information from the Hawaii Ecosystems at Risk Project: Phase 3"  
06/18/03 - 12/31/04  
(Continuation)  
$194,000  
FROM: DOI-Geological Survey

8. Duffy, David  
Botany  
"Research on Rehabilitation of Koa and Ohia Forests on the Island of Hawaii, Phase 4. Experimental Native Plant Restoration of Burn-damaged..."  
09/17/03 - 09/24/05  
(Continuation)  
$261,360  
FROM: DOI-Nat'l Park Service

9. Duffy, David  
Botany  
"Big Island Hawksbill Seaturtle Project, Phase 4"  
08/14/03 - 12/31/07  
(Continuation)  
$38,556  
FROM: DOI-Fish & Wildlife

10. Duffy, David  
Botany  
"Experimental Dryland and Mesic Forest Restoration on Leeward East Maui: Phase 3"  
06/20/03 - 12/31/04  
(Continuation)  
$20,000  
FROM: DOI-Geological Survey

11. Duffy, David  
Botany  
"Wiliwili Forest Restoration at Pu'u-o-kali Lava Flows, Western Haleakala, Maui"  
09/15/03 - 12/31/06  
(New)  
$75,325  
FROM: DOI-Fish & Wildlife

12. Duffy, David  
Botany  
"Ola'a Kilaauea Partnership Studies: Phase 2: Wetlands Studies"  
09/17/03 - 12/31/04  
(Continuation)  
$20,000  
FROM: DOI-Nat'l Park Service
13. Duffy, David  Botany
"Big Island Hawksbill Seaturtle Survey and Population Monitoring"
08/01/03 - 12/31/04  (New)  $87,253
FROM: DOI-Nat'l Park Service

14. Duffy, David  Botany
"Hosts, Vectors and Avian Diseases. Island of Hawaii, Phase 2"
07/21/03 - 12/31/04  (Continuation)  $130,000
FROM: DOI-Geological Survey

15. Duffy, David  Botany
"Testing a Predator-Proof Fence to Protect the Nene"
08/01/03 - 12/31/04  (New)  $20,840
FROM: DOI-Nat'l Park Service

16. Duffy, David  Botany
"Applied Research and Management on Incipient Populations of Wasmannia Auropunctata"
08/07/03 - 08/06/08  (New)  $120,000
FROM: DOI-Fish & Wildlife

17. Duffy, David  Botany
"Hosts, Vectors and Avian Diseases: Island of Hawaii. Phase 2, Supplement"
07/21/03 - 12/31/04  (Supplement)  $305,500
FROM: DOI-Geological Survey

18. Duffy, David  Botany
"Rare Plant Studies: Island of Hawaii. Phase 5"
09/17/03 - 09/22/05  (Continuation)  $112,375
FROM: DOI-Nat'l Park Service

19. Duffy, David  Botany
"Research on Strategies to Control Invasive Plant Species on Volcanoes on the Island of Hawaii"
09/17/03 - 09/09/07  (Renewal)  $866,085
FROM: DOI-Nat'l Park Service

20. Duffy, David  Botany
"Investigation of Methods and Effects for Control/Eradication of the Argentine Ant at Haleakala National Park: Phase 2 Supplement"
09/10/03 - 12/31/04  (Supplement)  $24,600
FROM: DOI-Nat'l Park Service

21. Duffy, David  Botany
"Research on Assessment and Control of Vector-Transmitted Avian Diseases in Pacific Parks"
07/21/03 - 12/31/04  (Continuation)  $50,000
FROM: DOI-Geological Survey

22. Duffy, David  Botany
"Hosts, Vectors, and Avian Diseases: Island of Hawaii, Phase 2, Supplement 2"
07/21/03 - 12/31/04  (Supplement)  $33,480
FROM: DOI-Geological Survey

23. Duffy, David  Botany
"Unit Support & General Activities Supplement"
07/21/03 - 12/31/04  (Supplement)  $65,102
FROM: DOI-Geological Survey

24. Duffy, David  Botany
"Curating Collections at Kalaupapa: Phase 3"
09/17/03 - 12/31/05  (Renewal)  $57,300
FROM: DOI-Nat'l Park Service

25. Duffy, David  Botany
"Sensitivity of Hawaiian High Elevation and Aquatic Ecosystems to Global Change"
07/21/03 - 12/31/04  (Continuation)  $65,769
FROM: DOI-Geological Survey

26. Duffy, David  Botany
"Biodiversity Inventories of the National Parks on Maui, Molokai and Hawaii Islands, Phase 6"
09/17/03 - 09/22/05  (Continuation)  $836,194
FROM: DOI-Nat'l Park Service

27. Duffy, David  Botany
"Restoration Ecology of Rare Plant Species at Kalaupapa, Hawaii - Phase 2"
09/17/03 - 12/31/05  (Renewal)  $65,000
FROM: DOI-Nat'l Park Service

28. Duffy, David  Botany
"Critical Assessment of Habitat for Release of Endangered Maui Parrotbill"
08/01/03 - 12/31/05  (New)  $149,500
FROM: DOI-Nat'l Park Service
29. Duffy, David Botany
"Research to Stabilize Endangered/Threatened Plant Species in Hawaii Parks"
09/17/03 - 09/13/05 (New) $50,000
FROM: DOI-Natl Park Service

30. Duffy, David Botany
"Controlling Weeds in Maui Watersheds"
08/01/03 - 12/31/04 (New) $356,000
FROM: DOI-Natl Park Service

31. Duffy, David Botany
"Geographic Information System Node Support Program at Hawaii Volcanoes National Park, Phase 9"
09/14/03 - 09/30/04 (Continuation) $49,250
FROM: DOI-Natl Park Service

32. Duffy, David Botany
"The Pacific Islands Exotic Plant Management Team"
09/17/03 - 09/24/05 (Continuation) $110,000
FROM: DOI-Natl Park Service

33. Duffy, David Botany
"Pacific Islands Coral Reef Research, Management and Monitoring"
09/17/03 - 12/31/04 (Continuation) $213,000
FROM: DOI-Natl Park Service

34. Duffy, David Botany
"Koa Forest Restoration at 'Ulupalakua, Maui"
08/18/03 - 12/31/06 (New) $64,000
FROM: DOI-Fish & Wildlife

35. Duffy, David Botany
"Protection of Archeological Sites from Destructive Alien Plants"
09/17/03 - 09/22/05 (Supplement) $60,000
FROM: DOI-Natl Park Service

36. Duffy, David Botany
"Facilitating the Leeward Haleakala Watershed Restoration Partnership"
09/15/03 - 06/30/08 (New) $13,000
FROM: DOI-Fish & Wildlife

37. Duffy, David Botany
"Endangered Species Research and Protection at Haleakala National Park"
09/17/03 - 12/31/05 (Continuation) $58,000
FROM: DOI-Natl Park Service

38. Duffy, David Botany
"Feral Animal Control Research, Haleakala National Park, Phase 4"
09/05/03 - 09/22/05 (Continuation) $63,966
FROM: DOI-Natl Park Service

39. Duffy, David Botany
"Foreign Exploration for Biocontrol Agents Against Miconia calvescens"
09/17/03 - 12/31/04 (Continuation) $30,000
FROM: DOI-Natl Park Service

40. Duffy, David Botany
"Protection and Documentation of Significant Structures at Pu'uhonua O Honaunau National Historical Park"
08/01/03 - 12/31/04 (New) $75,000
FROM: DOI-Natl Park Service

41. Duffy, David Botany
"Trial Program for Eradication of Potentially Invasive Plant Species on Private Lands on the Island of Maui, Hawaii"
09/15/03 - 09/14/08 (New) $42,500
FROM: DOI-Fish & Wildlife

42. Duffy, David Botany
"Biological Control Studies: Brazil"
08/23/03 - 12/31/04 (Continuation) $20,000
FROM: DOI-Geological Survey

43. Duffy, David Botany
"Research on Cultural Landscapes of Various Military Areas, Island of Hawaii"
08/15/03 - 09/30/04 (Continuation) $226,286
FROM: DOI-Geological Survey

44. Duffy, David Botany
"Mauna Kea Fire Behavior and Ecology Research"
08/15/03 - 06/30/05 (New) $258,238
FROM: DOI-Geological Survey

45. Duffy, David Botany
"Research on Ecological Landscapes of Various Training Areas, Island of Oahu"
08/15/03 - 05/31/05 (Continuation) $782,000
FROM: DOI-Geological Survey
48. Duffy, David  
Botany  
"Makua Endangered Species: Management and Restoration Research Phase 3"  
08/15/03 - 09/30/04  (Continuation)  $1,131,429  
FROM: DOI-Geological Survey

47. Duffy, David  
Botany  
"Suppression of Alien Yellowjackets in Hawaii"  
09/01/03 - 12/31/04  (New)  $67,136  
FROM: DOI-Geological Survey

48. Duffy, David  
Botany  
"Research and Develop Small Mammal Control Techniques in Hawaii Volcanoes National Parks, Phase 4"  
08/30/03 - 12/31/04  (Continuation)  $98,404  
FROM: DOI-Geological Survey

49. Duffy, David  
Botany  
"Hawaiian Forest Bird Research, Phase VII Supplement 3"  
09/03/03 - 12/31/04  (Continuation)  $22,791  
FROM: DOI-Geological Survey

50. Duffy, David  
Botany  
"Support for Invasive Species Committee Efforts, Phase 3"  
07/21/03 - 09/14/06  (Continuation)  $285,000  
FROM: DOI-Fish & Wildlife

51. Duffy, David  
Botany  
"Preventing Invasive Alien Species: Disseminating Information from the Hawaii Ecosystems at Risk Project. Phase 3 Supplement"  
09/09/03 - 12/31/04  (Supplement)  $88,000  
FROM: DOI-Geological Survey

52. Duffy, David  
Botany  
"Hawaiian Forest Bird Research: Phase 7, Sup 3"  
09/18/03 - 12/31/04  (Supplement)  $27,500  
FROM: DOI-Geological Survey

53. Duffy, David  
Botany  
"Support for Invasive Species Committee Efforts, Phase 3"  
08/27/03 - 09/14/06  (Continuation)  $23,262  
FROM: DOI-Fish & Wildlife

54. Duffy, David  
Botany  
"Support for Hawaii Invasive Species Group"  
09/04/03 - 09/14/06  (Supplement)  $13,800  
FROM: DOI-Fish & Wildlife

55. Duffy, David  
Botany  
"Support for Hawaii Invasive Species Group"  
09/05/03 - 09/14/06  (Supplement)  $5,500  
FROM: DOI-Fish & Wildlife

56. Duffy, David  
Botany  
"Unit Support and General Activities: FY 04"  
01/21/04 - 12/31/04  (Continuation)  $341,404  
FROM: DOI-Geological Survey

57. Duffy, David  
Botany  
"Preventing Invasive Alien Species: Disseminating Information from the Hawaii Ecosystems at Risk Project Phase 2: Supplement 2"  
03/18/04 - 12/31/04  (Supplement)  $7,500  
FROM: DOI-Geological Survey

58. Duffy, David  
Botany  
"Hawaiian Forest Bird Research, Phase 7, Supplement 4"  
03/18/04 - 12/31/04  (Supplement)  $15,000  
FROM: DOI-Geological Survey

59. Duffy, David  
Botany  
"Applied Research and Management on Incipient Populations of Wasmannia Auropunctata"  
09/25/03 - 08/06/08  (Supplement)  $2,491  
FROM: DOI-Fish & Wildlife

60. Duffy, David  
Botany  
"Big Island Hawksbill Sea Turtle Project: Phase 3 Supplement"  
09/24/04 - 12/31/07  (Supplement)  $9,000  
FROM: DOI-Fish & Wildlife

61. Duffy, David  
Botany  
"Support for Invasive Species Committee Efforts"  
09/25/03 - 09/14/06  (Supplement)  $5,524  
FROM: DOI-Fish & Wildlife

62. Duffy, David  
Botany  
"Main Seawall, Kaloko-Honokohau National Historic Park, Phase 5"  
06/28/04 - 09/22/05  (Continuation)  $87,500  
FROM: DOI-Na'i Park Service

63. Fletcher, Charles H  
Geology & Geophysics - SOEST  
"Historical Shoreline Change in the Hawaiian Islands"  
08/11/03 - 09/14/03  (Continuation)  $75,000  
FROM: DOI-Geological Survey
64. Fletcher, Charles H  
Geology & Geophys - SOEST

"USGS Reef Project"
09/19/03 - 09/18/04  (Continuation)  $75,000
FROM: DOI-Geological Survey

65. Hadfield, Michael G  
Pacific Biomed Rsrch Crntr

"Conservation Biology of Federally Endangered Hawaiian Tree Snails"
07/28/03 - 09/30/04  (Continuation)  $80,000
FROM: DOI-Fish & Wildlife

66. Jokieli, Paul L  
Haw Inst Marine Bio-SOEST

"USGS Collaborative Study of Molokai Coral Reef"
11/19/03 - 09/18/04  (Continuation)  $51,061
FROM: DOI-Geological Survey

67. Kaneshiro, Kenneth Y  
Pacific Biomed Rsrch Crntr

"Create Internet Map Server of Incipient Alien Species as Part of the Pacific Basin Information Node - Spatial Data and Mapping (Hawaii Natural ...)"
09/01/03 - 08/31/04  (New)  $150,000
FROM: DOI-Geological Survey

68. Laws, Edward A  
Oceanography - SOEST

"Assess Nutrient Sources, Fluxes, and Water Quality of Ponds"
05/01/04 - 12/31/05  (New)  $50,500
FROM: DOI-Nat'i Park Service

69. Li, Qingxiao  
Molecular Biosciences & Bioengineering

"Fate of Environmental Contaminants in Ecosystems"
02/12/04 - 12/31/08  (New)  $20,000
FROM: DOI-Fish & Wildlife

70. Moncur, James E T  
Water Resource Research

"Water Resources Research Institute Annual Base Program 2004"
03/01/04 - 02/28/05  (New)  $92,524
FROM: DOI-Geological Survey

71. Smith, Celia M  
Botany

"Testing a Method for the Removal of the Invasive Alga Avrainvillea amadelphe from Hawaiian Seagrass Habitats"
08/28/03 - 08/31/05  (New)  $10,000
FROM: DOI-Fish & Wildlife

72. Ziegler-Chong, Sharon  
UHH- Agriculture

"Unit Support/General Activities"
09/30/03 - 12/31/04  (Continuation)  $199,557
FROM: DOI-Dept of Interior

DOT-Dept of Transportation

1. Manghnani, Murli H  
Haw Inst Geophys & Planet

"Scanning Acoustic Microscopy of Interfaces in Cement Composites"
07/09/03 - 09/30/04  (Supplement)  $220,000
FROM: DOT-Dept of Transportation

ED-Dept of Education

1. Chen, Bill H  
UHH- Coll of Cont. Educ

"Directed Grants-Rural Science Program"
09/30/03 - 09/29/04  (Continuation)  $49,675
FROM: ED-Dept of Education

2. Johnson, Jean  
Center on Disability Studies

"Study of Cultural Variables Influencing the Development and Imp. Of Self-Determination Skills In Youth w/Serious....."
10/01/04 - 09/30/05  (Continuation)  $180,000
FROM: ED-Dept of Education

3. Menton, Linda K  
CRDG

"Instructional Materials on East Asia for Secondary Students"
07/01/04 - 06/30/05  (New)  $126,834
FROM: ED-Dept of Education

4. Sak-Humphry, Chhany  
Haw'n & Indo-Pac Language

"Communicating in Khmer: An Interactive Advanced-Level Course with CD-ROMs"
07/01/03 - 06/30/04  (New)  $95,851
FROM: ED-Dept of Education

5. Sak-Humphry, Chhany  
Haw'n & Indo-Pac Language

"Communicating in Khmer: An Interactive Advanced-Level Course with CD-ROMs"
07/01/04 - 06/30/05  (Continuation)  $96,996
FROM: ED-Dept of Education
2003-2004 RESEARCH AWARDS BY SPONSOR

National Science Foundation

1. Allen, Richard D  Pacific Biomed Rsrch Cntr
   "Osmoregulation and Contractile Vacuole Dynamics"
   04/01/04 - 03/31/05  (Continuation)  $110,000
   FROM: National Science Foundation

2. Barnes, Gary M  Meteorology - SOEST
   "Hurricane Intensity Response to Changes in Inflow Thermodynamics"
   03/01/04 - 02/28/05  (Continuation)  $130,284
   FROM: National Science Foundation

3. Bayman, James M  Anthropology
   "Collaborative Research: Power and Economy at the Marana Mound:
   Structure of an Early Classic Center Near Tucson, Arizona"
   07/09/03 - 11/30/04  (Supplement)  $5,000
   FROM: National Science Foundation

4. Bevis, Michael G  Haw Inst Geophys & Planet
   "Collaborative Research: Integrated Geodetic, Seismological and
   Geodynamic Studies of Deformation In the Central and Southern Andes"
   09/01/03 - 05/31/04  (Continuation)  $93,786
   FROM: National Science Foundation

5. Bidigare, Robert R  Oceanography - SOEST
   "Collaborative Research: Influences of Cyclonic Eddy Activity on
   Planktonic Food Web Dynamics and Carbon Export in the Lee of Hawaii"
   09/15/03 - 09/30/06  (New)  $671,321
   FROM: National Science Foundation

6. Bidigare, Robert R  Sch Ocean,Earth Sci & Tec
   "Marine Bicoproducts Engineering Center (MarBEC)"
   03/16/02 - 10/31/03  (Continuation)  $56,500
   FROM: National Science Foundation

7. Bitterman, M E  Pacific Biomed Rsrch Cntr
   "Learning in Honeybees"
   03/01/04 - 02/28/07  (New)  $150,000
   FROM: National Science Foundation

8. Brandon, Paul R  CRDG
   "Supplemental Funding for IERI Grant No. 0228158, Phase-1 Study of
   the Effects of Professional Development and Long-term Support on
   Program....."
   09/28/03 - 02/28/05  (Supplement)  $26,812
   FROM: National Science Foundation

Agency for International Development

1. El-Swaify, Samir  Natural Resources & Environmental Mgt
   "Hawaii-Iraq Partnership for Revitalizing Agricultural Education and
   Development"
   09/30/03 - 09/30/04  (New)  $3,770,724
   FROM: Agency for International Development

2. Uehara, Goro  Tropical Plant & Soil Science
   "Soil Management CRSP"
   07/01/03 - 09/30/07  (Continuation)  $3,000,000
   FROM: Agency for International Development

3. Uehara, Goro  Tropical Plant & Soil Science
   "Soil Management CRSP"
   09/17/03 - 09/30/07  (Continuation)  $1,800,000
   FROM: Agency for International Development

Environmental Protection Agency

1. Lucey, Paul  Haw Inst Geophys & Planet
   "LWIR Hyperspectral Data Collection"
   04/13/04 - 07/01/04  (New)  $59,440
   FROM: Environmental Protection Agency

2. Parsons, Michael  UHH- Natural Sciences
   "Anthropogenic Impact Assessment"
   09/15/03 - 10/31/05  (New)  $102,787
   FROM: Environmental Protection Agency
9. Brandon, Paul R  
CRDG  
"Supplemental Funding for IERI Grant No. 0228158, Phase-1 Study of the Effects of Professional Development and Long-term Support on Program..."  
02/05/04 - 02/28/05  (Supplement)  $99,052  
FROM: National Science Foundation

10. Callahan, Sean  
Microbiology  
"Genetics of Heterocyst Differentiation and Patterning"  
05/01/04 - 04/30/07  (New)  $355,200  
FROM: National Science Foundation

11. Chambers, Kenneth C  
Institute for Astronomy  
"The Nature of High Redshift Radio Source Hosts"  
06/01/03 - 05/31/04  (Continuation)  $74,505  
FROM: National Science Foundation

12. Chen, Yi-Leng  
Meteorology - SOEST  
"Island-Scale Circulations Over the Island of Hawaii"  
08/01/04 - 07/31/05  (Continuation)  $88,286  
FROM: National Science Foundation

13. Christopher, David A  
Molecular Biosciences & Bioengineering  
"Functional Genomics of the Protein Disulfide Isomerase Family: Unraveling Protein Folding and Redox-Regulatory Networks"  
03/01/04 - 02/28/06  (New)  $543,208  
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14. Chyba, Monique  
Mathematics  
"New Strategy for Minimizing Two Costs in Control Optimal Problems: Application to Underwater Vehicles"  
09/01/03 - 08/31/06  (New)  $248,441  
FROM: National Science Foundation

15. Clarke, Antony D  
Oceanography - SOEST  
"Aerosol Physicochemistry: Aircraft Measurements for ACE-Asia"  
01/01/04 - 12/31/04  (Continuation)  $102,000  
FROM: National Science Foundation

16. Cowen, James P  
Oceanography - SOEST  
"(Non-TEP) Abiotic Particle Formation from Dissolved Organic Matter in Marine Environments: Possible Shunt to the Microbial Loop"  
09/15/04 - 05/31/06  (New)  $224,541  
FROM: National Science Foundation

17. Cowie, Robert H  
Pacific Biomed Rsrch Cntr  
"Revision and Phylogeographic Analysis of Pacific Island Succineid Land Snails"  
08/01/03 - 07/31/04  (New)  $138,690  
FROM: National Science Foundation

18. Cowie, Robert H  
Pacific Biomed Rsrch Cntr  
"Revision and Phylogeographic Analysis of Pacific Island Succineid Land Snails"  
08/01/04 - 07/31/05  (Continuation)  $164,781  
FROM: National Science Foundation

19. Dunn, Robert A  
Geology & Geophys - SOEST  
"Collaborative Research: Seismic Analysis of Upper-Mantle Dynamics: Seafloor Spreading and Hotspot Interaction in the Atlantic"  
09/01/03 - 08/31/05  (New)  $150,836  
FROM: National Science Foundation

20. Edwards, Margo H  
Haw Inst Geophys & Planet  
"Collaborative Research: Trans-Arctic 2005 Expedition for Development of a Pan-Arctic Stratigraphy and Paleoclimate Record"  
05/01/04 - 04/30/07  (New)  $80,937  
FROM: National Science Foundation

21. Edwards, Margo H  
Haw Inst Geophys & Planet  
"High-Resolution Bathymetry of the Alaska Margin Derived from SCICEX/SCAMP Data"  
12/15/03 - 11/30/04  (New)  $31,597  
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22. Firing, Eric  
Oceanography - SOEST  
"Equatorial Subthermocline Currents: Observations and Models"  
09/01/03 - 08/31/06  (New)  $297,084  
FROM: National Science Foundation

23. Fuchs, Christ  
Institute for Astronomy  
"High Performance Adaptive Optics for Astronomy in the Southern Hemisphere"  
05/01/04 - 04/30/05  (Continuation)  $423,984  
FROM: National Science Foundation

24. Gaidos, Eric  
Geology & Geophys - SOEST  
"Microcom Investigations of Carbonate Reef Microbial Biogeochemistry"  
08/15/03 - 07/31/04  (New)  $79,948  
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<td>Geology &amp; Geophysics - SOEST</td>
<td>&quot;What are the Parental Magma Compositions for Historical Kilauea Lava?&quot;</td>
<td>02/01/04 - 01/31/05</td>
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<td>Giambelluca, Thomas W</td>
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<td>Huebert, Barry J</td>
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<td>&quot;Direct Measurement of the Dimethyl Sulfide (DMS) Sea-Air Flux and Exchange Coefficient&quot;</td>
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<td>HCAC (Hi Ctr for Advanced Communication)</td>
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<td>&quot;Further Studies of Ocean-Atmosphere Coupled Dynamics in the Tropical Pacific&quot;</td>
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<td>&quot;International Collaborative Research: Evolution of the Hawaiian Plume - Geochemical Studies of Hana Ridge, Haleakula, Hawaii&quot;</td>
<td>02/01/04 - 01/31/07</td>
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<td>Johnson, Philip M</td>
<td>Info &amp; Computer Science</td>
<td>&quot;Supporting the Development of Highly Dependable Software through Incremental, Automated, In-process, and Individualized Software Measurement...&quot;</td>
<td>09/01/03 - 08/31/04</td>
<td>$79,741</td>
<td>(Continuation)</td>
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41. Karl, David M  
Oceanography - SOEST  
"Collaborative Research: Hawaii Ocean Time-series: Biogeochemistry and Ecology Component"  
09/15/03 - 07/31/04 (Renewal)  $920,704  
FROM: National Science Foundation

42. Karl, David M  
Oceanography - SOEST  
"Collaborative Research: Multi-disciplinary Ocean Sensors for Environmental Analyses and Networks (MOSEAN)"  
08/15/03 - 07/31/04 (New)  $140,001  
FROM: National Science Foundation

43. Karl, David M  
Oceanography - SOEST  
"Collaborative Research: Hawaii Ocean Time-series: Biogeochemistry and Ecology Component"  
08/01/04 - 07/31/05 (Renewal)  $798,722  
FROM: National Science Foundation

44. Kumashiro, Kristin K  
Chemistry  
"NMR Studies of Elastin Structure and Dynamics"  
05/01/04 - 04/30/05 (New)  $156,352  
FROM: National Science Foundation

45. Lamb, Roberta  
Info Technology Mgmt  
"Examining the Roles of ICTs in Collaborative Networking between Academia and Industry"  
07/02/03 - 09/30/04 (Continuation)  $108,260  
FROM: National Science Foundation

46. Laws, Edward A  
Oceanography - SOEST  
"Pacific Research Center for Marine Biomedicine"  
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FROM: National Science Foundation

47. Lenz, Petra H  
Pacific Biomed Rsrch Cntr  
"Collaborative Research: Sensory Reception and Predator Evasion in Crustacean Zooplankton"  
05/19/04 - 08/31/04 (Supplement)  $6,308  
FROM: National Science Foundation

48. Liu, Michael  
Institute for Astronomy  
"New Windows into the Substellar Mass Function"  
07/01/04 - 06/30/05 (New)  $90,524  
FROM: National Science Foundation

49. Lukas, Roger B  
Oceanography - SOEST  
"A Time-Series Study of Ocean Climate Processes in the North Pacific Subtropical Gyre"  
10/01/03 - 09/30/04 (New)  $515,895  
FROM: National Science Foundation

50. Lukas, Roger B  
Oceanography - SOEST  
"SENSORS:Collaborative Research: ALOHA Mooring Sensor Network and Adaptive Sampling"  
10/01/03 - 07/31/05 (New)  $229,731  
FROM: National Science Foundation

51. Lukas, Roger B  
Oceanography - SOEST  
"A Time-Series Study of Ocean Climate in the North Pacific Subtropical Gyre"  
12/01/03 - 11/30/04 (Continuation)  $150,000  
FROM: National Science Foundation

52. Luther, Douglas S  
Oceanography - SOEST  
"Collaborative Research: Gulf Stream Re-Analysis-Structure, Transport and Dynamics"  
03/01/04 - 02/28/07 (New)  $297,461  
FROM: National Science Foundation

53. Luther, Douglas S  
Oceanography - SOEST  
"Collaborative Research: Observing Integrating Ocean Variables"  
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FROM: National Science Foundation

54. Luther, Douglas S  
Oceanography - SOEST  
"Hawaii Ocean Mixing Experiment (HOME): Near-Field Program: Moored Measurements of Tidal Oscillations"  
12/01/03 - 11/30/04 (Continuation)  $68,000  
FROM: National Science Foundation

55. Luther, Douglas S  
JIMAR - SOEST  
"Hawaii Ocean Mixing Experiment (HOME): Historical Data Analysis Program - U. Hawaii Contribution"  
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FROM: National Science Foundation

56. Luther, Douglas S  
Oceanography - SOEST  
"Collaborative Research - SGER - Model Verification of Radiation of Barotropic Energy from the Gulf Stream"  
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57. Mahoney, John  Geology & Geophys - SOEST
"An Isotopic and Elemental Study of Deccan Traps Dikes"
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FROM: National Science Foundation

58. Manghani, Murli H  Haw Inst Geophys & Planet
"Compressibility and Structure of Silicate Materials at High Pressure"
11/14/03 - 07/31/04  (Supplement)  $29,000
FROM: National Science Foundation

59. Martin, Mark Q  Pacific Biomed Rrch Cntr
"Collaborative Research-Assembling the Tree of Life: An Integrated Approach to the Origin and Diversification of Protostomes"
01/01/04 - 12/31/04  (New)  $153,007
FROM: National Science Foundation

60. Martin, Mark Q  Pacific Biomed Rrch Cntr
"The Evolution of Embryonic Polarity: A Molecular and Phylogenetic Approach"
01/15/04 - 12/31/04  (New)  $260,026
FROM: National Science Foundation

61. Martin, Mark Q  Pacific Biomed Rrch Cntr
"Developmental, Molecular, and Evolutionary Analysis of Chaetognaths: A Deuterostome-like Ecdysozoan"
01/01/04 - 12/31/04  (Continuation)  $69,753
FROM: National Science Foundation

62. Martinez, Fernando  Haw Inst Geophys & Planet
"Collaborative Research: Investigating the Interrelationships between Crustal Structure, Volcanism, and Hydrothermal Activity Along the Backarc"
02/15/04 - 01/31/05  (New)  $174,761
FROM: National Science Foundation

63. McFall-Ngai, Margaret  Pacific Biomed Rrch Cntr
"Reciprocal Signaling in Animal-bacteria Development"
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FROM: National Science Foundation

64. Measures, Christopher  Oceanography - SOEST
"Collaborative Research: Sampling and Analysis of Iron, an international Collaboration"
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FROM: National Science Foundation

65. Mendez, Roberto  Institute for Astronomy
"Extragalactic Planetary Nebulae"
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FROM: National Science Foundation

66. Merrifield, Mark A  Oceanography - SOEST
"Hawaii Ocean Mixing Experiment: Nearfield Program: High Frequency RADAR Observation as of Surface Currents at Tidal and Subtidal Frequencies..."
06/22/04 - 06/30/05  (Supplement)  $43,895
FROM: National Science Foundation

67. Merrifield, Mark A  Oceanography - SOEST
"Hawaii Ocean Mixing Experiment: Nearfield Program: High Frequency RADAR Observations of Surface Currents at Tidal and Subtidal Frequencies"
07/01/04 - 09/30/05  (Continuation)  $149,443
FROM: National Science Foundation

68. Moore, Gregory F  Geology & Geophys - SOEST
"Collaborative Research: Seismic Velocity, Compaction, and Pore Pressure in Underthrust Sediments, Nankai Subduction Zone"
09/01/03 - 07/31/06  (New)  $87,464
FROM: National Science Foundation

69. Moore, Gregory F  Geology & Geophys - SOEST
"Collaborative Research: Seismic Velocity, Compaction, and Pore Pressure in Underthrust Sediments, Nankai Subduction Zone"
09/01/04 - 07/31/06  (Supplement)  $8,000
FROM: National Science Foundation

70. Mott, Michael J  Oceanography - SOEST
"Collaborative Research: Sampling and Initial Characterization of Hydrothermal Fluids, Deposits, Microfauna, and Megafauna at Vent Fields along the..."
01/01/04 - 12/31/04  (New)  $74,961
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71. Popp, Brian N  Geology & Geophys - SOEST
"Collaborative Research: Comparative Study of Alkenone Production and Productivity in Contrasting Surface Water Environments in the North Pacific Ocean"
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72. Qiu, Bo
Oceanography - SOEST
"Collaborative Research: Kuroshio Extension System Study (KESS)"
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FROM: National Science Foundation

73. Ravizza, Gregory E
Geology & Geophys - SOEST
"Late Cretaceous Osmium Isotope Stratigraphy"
07/15/03 - 06/30/06 (New) $209,530
FROM: National Science Foundation

74. Reipurth, Bo
Institute for Astronomy
"Herbig-Haro Flows as Probes of Early Stellar Evolution (Collaborative Research)"
08/01/04 - 05/31/07 (New) $232,000
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75. Richards, Kelvin
Oceanography - SOEST
"Mixing in the Equatorial Pacific: The Role of Interleaving"
09/01/03 - 08/31/06 (New) $346,315
FROM: National Science Foundation

76. Rubin, Kenneth H
Geology & Geophys - SOEST
"Collaborative Research: A Uranium-Series and Hafnium Isotope Investigation of the Link Between Partial Melting and Mantle Heterogeneity Beneath the..."
02/27/04 - 09/30/05 (Supplement) $15,027
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77. Sansone, Francis J
Oceanography - SOEST
"Wave-Driven Porewater-Seawater Exchange in Sandy Coastal Sediments"
04/01/04 - 03/31/07 (New) $461,553
FROM: National Science Foundation

78. Siegel, Jeffrey
Second Language Studies
"External Influences and Internal Variation in Hawai'i Creole English"
04/15/04 - 03/31/06 (New) $177,291
FROM: National Science Foundation

79. Sinton, John M
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"Collaborative Research: Integrated Petrological, Geophysical, and Numerical Modeling Constraints on Crustal and Mantle Processes Along the Galapagos..."
01/01/04 - 12/31/05 (Renewal) $316,877
FROM: National Science Foundation

80. Sinton, John M
Geology & Geophys - SOEST
"Insight into Mantle Melting and Crustal Differentiation of Ocean Island Volcanoes: An Isotopic and Trace Element Study of Waianae Volcano, Hawaii"
07/01/04 - 06/30/06 (New) $74,932
FROM: National Science Foundation

81. Stockton, Alan N
Institute for Astronomy
"Old Stellar Populations at High Redshifts"
07/15/03 - 06/30/04 (New) $67,183
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82. Suthers, Daniel D
Info & Computer Science
"Collaborative Representations: Supporting Online Knowledge-building Discourse"
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FROM: National Science Foundation

83. Thordarson, Thorvaldur
Geology & Geophys - SOEST
"Collaborative Research on Climatic Effects of the 1783-1784 Laki Volcanic Eruption"
08/15/03 - 07/31/04 (New) $36,699
FROM: National Science Foundation

84. Ticktin, Tamara
Botany
"How Do Human Seed Predators Affect the Population Ecology of Tropical Forest Trees?"
05/15/04 - 04/30/07 (New) $30,553
FROM: National Science Foundation

85. Tricas, Timothy
Haw Inst Marine Bio-SOEST
"The Laterophysic Connection: Integration of the Auditory and Lateral Line Systems in Sound Reception"
08/01/04 - 07/31/05 (Continuation) $95,938
FROM: National Science Foundation

86. Tully, R Brent
Institute for Astronomy
"The Faint End of the Galaxy Luminosity Function"
09/01/03 - 08/31/06 (New) $177,398
FROM: National Science Foundation

87. Wang, Bin
Meteorology - SOEST
"Dynamics of the Boreal Summer Intraseasonal Oscillation"
10/01/03 - 09/30/04 (New) $144,638
FROM: National Science Foundation
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<td>&quot;In-Situ Measurements of Aerosol Size Distributions, Black Carbon and Inferred CCN and Their Implications for Remote Sensing: Retrospective Data ...&quot;</td>
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<td>&quot;Measurements of Aerosol Physio-chemistry and Optical Properties Aboard the DC-8 in Support of the NASA (INTEX-A) Mission&quot;</td>
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<td>&quot;Application of Satellite Data to improve the Simulation and Prediction of Tropical IntraSeasonal Oscillation (TISO)&quot;</td>
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44. Mouginis-Mark, Peter J  
Haw Inst Geophys & Planet  
"Analysis and Validation of SRTM Data Over Tropical Volcanoes"  
10/01/03 - 09/30/05  (New)  $76,000  
FROM: Nat’l Aeronautics & Space Administration

45. Mouginis-Mark, Peter J  
Haw Inst Geophys & Planet  
"Studies of Martian Impact Craters Using MGS and Odyssey Data"  
04/26/04 - 04/30/05  (Continuation)  $70,850  
FROM: Nat’l Aeronautics & Space Administration

46. Nielsen, Torben N  
Haw Inst Geophys & Planet  
"NASA International DB Meeting: Hapuna Beach Prince Hotel, Big Island"  
12/03/03 - 04/30/06  (New)  $39,903  
FROM: Nat’l Aeronautics & Space Administration

47. Nielsen, Torben N  
Haw Inst Geophys & Planet  
"Hawaii Earth Observatory"  
04/20/04 - 04/30/06  (Renewal)  $381,638  
FROM: Nat’l Aeronautics & Space Administration

48. Owen, Tobias  
Institute for Astronomy  
"Participation in the Consolidated Infrared Spectrometer (CIRS) Project as Co-Investigator"  
01/15/04 - 09/30/04  (Continuation)  $15,000  
FROM: Nat’l Aeronautics & Space Administration

49. Owen, Tobias  
Institute for Astronomy  
"Participation in Planet-B NMS Team"  
09/30/03 - 11/30/04  (Continuation)  $15,000  
FROM: Nat’l Aeronautics & Space Administration

50. Porter, John N  
Haw Inst Geophys & Planet  
"Measurements of Aerosol Phase Functions, Scattering Coefficients and Extinction Coefficients: Passive and Active Remotely Sensing"  
03/01/04 - 02/28/07  (New)  $75,000  
FROM: Nat’l Aeronautics & Space Administration

51. Qu, Tangdong  
Oceanography - SOEST  
"Upwelling and Its Influence on the Sea Surface Temperature off Java and Sumatra"  
02/10/04 - 01/31/05  (Continuation)  $92,082  
FROM: Nat’l Aeronautics & Space Administration

52. Ralphuth, Bo  
Institute for Astronomy  
"The Star Formulation Newsletter"  
04/15/04 - 04/14/05  (New)  $26,000  
FROM: Nat’l Aeronautics & Space Administration

53. Sanders, David B  
Institute for Astronomy  
"Buried Quasars in Ultraluminous infrared Galaxies"  
08/15/03 - 08/14/04  (New)  $15,000  
FROM: Nat’l Aeronautics & Space Administration

54. Sanders, David B  
Institute for Astronomy  
"INTEGRAL Observations of the Ultraluminous Infrared Galaxy Mrk273"  
10/01/03 - 09/30/04  (New)  $16,651  
FROM: Nat’l Aeronautics & Space Administration

55. Sharma, Shiv K  
Haw Inst Geophys & Planet  
"Development of a Combined Instrument for LIBS and Remote Raman Spectroscopy to Operate at Stand-off Distances up to Ten Meters or More"  
04/13/04 - 03/14/06  (Supplement)  $85,892  
FROM: Nat’l Aeronautics & Space Administration

56. Simon, Theodore  
Institute for Astronomy  
"Origin of the Far-UV Emission from Binary Pre-Main Sequence Herbig Ae/Be Stars"  
10/01/03 - 09/30/04  (New)  $20,400  
FROM: Nat’l Aeronautics & Space Administration

57. Simon, Theodore  
Institute for Astronomy  
"Origin of X-ray Emission from the Pre-Main Sequence Herbig Ae/Be Stars"  
03/01/04 - 02/28/05  (New)  $5,300  
FROM: Nat’l Aeronautics & Space Administration

58. Simon, Theodore  
Institute for Astronomy  
"X-Ray Emission from Low-Mass Protostars in the L1251 Dark Cloud"  
04/01/04 - 03/31/05  (New)  $42,571  
FROM: Nat’l Aeronautics & Space Administration

59. Stevens, Duane E  
Meteorology - SOEST  
"Meteorological Investigation of the Helios Mishap: Modeling and Observations"  
08/14/03 - 09/30/04  (New)  $92,666  
FROM: Nat’l Aeronautics & Space Administration
2003-2004 RESEARCH AWARDS BY SPONSOR

60. Stevens, Duane E  Meteorology - SOEST
   "Meteorological Investigation of the Helios Mishap: Modeling and Observations"
   10/31/03 - 09/30/04 (Continuation)  $11,934
   FROM: Natl Aeronautics & Space Administration

61. Stevens, Duane E  Meteorology - SOEST
   "Additional Measurement and Sixth Flight for the HELIOS Mishap Investigation"
   12/18/03 - 09/30/04 (Supplement)  $3,625
   FROM: Natl Aeronautics & Space Administration

62. Szapudi, Istvan  Institute for Astronomy
   "Novel Techniques for Fast CMB Analysis"
   12/03/03 - 04/30/05 (Supplement)  $27,709
   FROM: Natl Aeronautics & Space Administration

63. Taylor, G Jeffrey  Haw Inst Geophys & Planet
   "Sharing Discoveries in Cosmochemistry and Planetary Geosciences on the Internet"
   05/24/04 - 04/30/05 (Continuation)  $85,000
   FROM: Natl Aeronautics & Space Administration

64. Tholen, David J  Institute for Astronomy
   "Search for Near Earth Objects with Small Aphelion Distances"
   11/04/03 - 08/14/05 (Continuation)  $141,000
   FROM: Natl Aeronautics & Space Administration

Hawaii- Government Agencies

1. Archilla, Adrian Ricardo  Civil Engineering
   "Effect of Polymer Modified Asphalt Binders on the Performance of the Asphalt Concrete Mixes Used in Hawaii"
   01/16/04 - 01/15/07 (New)  $40,000
   FROM: Hawaii-Dept of Transportation

2. Babcock, Roger W  Water Resource Research
   "Membrane Bioreactor Pilot Test"
   07/01/03 - 12/31/04 (New)  $25,000
   FROM: City and County of Honolulu

3. Cheung, Kwok F  Ocean & Resources Engineering - SOEST
   "Tsunami Forecast and Inundation Map for Hawaii"
   01/01/04 - 01/01/05 (New)  $103,020
   FROM: Hawaii-Civil Defense Division

4. Chu, Peo-Shin  Meteorology - SOEST
   "Generating Precipitation Grids for the Waianae Coast, Oahu in Support of NOAA Coastal Water Quality Project (N-SPECT)"
   02/18/04 - 10/31/04 (New)  $20,000
   FROM: Hawaii-Dept of Business & Economic Development

5. Conant, Sheila  Zoology
   "Seasonal Movements in Seasonal Movement Patterns in Ilwi (Vestilia coccinea)"
   07/01/03 - 09/30/04 (New)  $3,500
   FROM: Hawaii-Dept of Land & Natural Resources

6. Daehler, Curtis C  Botany
   "Using the Weed Risk Assessment System and Field Documentation of Invasiveness for Making Urban Forestry Decisions"
   05/01/04 - 12/31/04 (Continuation)  $49,186
   FROM: Hawaii-Dept of Land & Natural Resources

7. Duffy, David  Botany
   "Threatened and Endangered Species Recovery: Kauai"
   05/01/03 - 09/30/04 (Continuation)  $30,000
   FROM: Hawaii-Dept of Land & Natural Resources

8. Duffy, David  Botany
   "Field and Management Studies of Endangered Hawaiian Forest Birds"
   07/01/03 - 06/30/04 (Continuation)  $350,000
   FROM: Hawaii-Dept of Land & Natural Resources

9. Duffy, David  Botany
   "Akalapalaau Population Research and Management Phase 2"
   07/01/03 - 06/30/04 (New)  $25,000
   FROM: Hawaii-Dept of Land & Natural Resources

10. Duffy, David  Botany
    "Hamakua Wetland Restoration"
    08/01/03 - 06/30/04 (Continuation)  $24,570
    FROM: Hawaii-Dept of Land & Natural Resources

11. Duffy, David  Botany
    "Kauai Alien Pest Plant Response Effort"
    07/01/03 - 12/31/04 (Continuation)  $20,000
    FROM: Hawaii-Dept of Land & Natural Resources
12. Duffy, David Botany
"Forest Health Program: Suppression of the Noxious Weed Miconia Calvescens: Island of Maui, FY 04"
06/01/03 - 06/30/04 (Continuation) $55,000
FROM: Hawaii-Dept of Land & Natural Resources

13. Duffy, David Botany
"Forest Restoration on Mauna Kea"
07/01/02 - 06/30/03 (Supplement) $22,000
FROM: Hawaii-Dept of Land & Natural Resources

14. Duffy, David Botany
"Forest Health Program: Suppression of the Noxious Weed Miconia Calvescens on the Island of Hawaii FY 04"
06/01/03 - 06/30/04 (Continuation) $40,000
FROM: Hawaii-Dept of Land & Natural Resources

15. Duffy, David Botany
"Eradication of Incipient Invasive Forest Pests on Oahu"
06/01/03 - 06/30/04 (New) $30,000
FROM: Hawaii-Dept of Land & Natural Resources

16. Duffy, David Botany
"Ecosystem Management Program: HIARNG 04"
10/01/03 - 06/30/04 (Continuation) $953,000
FROM: Hawaii-Dept of Defense

17. Duffy, David Botany
"Development of a North Kona Pailla Safe Harbor Agreement for Kamehameha Schools"
07/01/03 - 06/30/04 (New) $50,500
FROM: Hawaii-Dept of Land & Natural Resources

18. Duffy, David Botany
"Landowner Assistance Program and Safe Harbor for Endangered Species"
09/01/03 - 06/30/04 (Continuation) $46,161
FROM: Hawaii-Dept of Land & Natural Resources

19. Duffy, David Botany
"Eradication of Incipient Forest Pests on Kauai: Phase 2 Supplement"
07/01/03 - 06/30/04 (Supplement) $105,000
FROM: Hawaii-Dept of Land & Natural Resources

20. Duffy, David Botany
"Eradication of Incipient Forest Pests by the Kauai Invasive Species Committee"
06/01/03 - 06/30/04 (Continuation) $30,000
FROM: Hawaii-Dept of Land & Natural Resources

21. Duffy, David Botany
"Kauai Alien Pest Plant Response Effort - Phase 3"
07/01/03 - 06/30/04 (Continuation) $40,000
FROM: Hawaii-Dept of Land & Natural Resources

22. Duffy, David Botany
"Oahu Invasive Weed Research: Phase 3"
07/01/03 - 06/30/04 (Continuation) $97,000
FROM: Hawaii-Dept of Land & Natural Resources

23. Duffy, David Botany
"Threatened and Endangered Species Recovery: Kauai, Phase 8"
07/01/03 - 06/30/04 (Continuation) $55,000
FROM: Hawaii-Dept of Land & Natural Resources

24. Duffy, David Botany
"Forest Health Program: Suppression of the Noxious Weed Miconia Calvescens: Island of Maui: FY 04"
07/01/03 - 06/30/04 (Continuation) $180,000
FROM: Hawaii-Dept of Land & Natural Resources

25. Duffy, David Botany
"Hawaiian Ecosystems: Management and Education: Koolau Watershed: Phase 9"
11/01/03 - 06/30/04 (Continuation) $23,792
FROM: Hawaii-Dept of Land & Natural Resources

26. Duffy, David Botany
"Forest Health Program: Suppression of the Noxious Weed Miconia Calvescens: Island of Hawaii"
07/01/03 - 06/30/04 (Continuation) $295,000
FROM: DLNR (DOFAW)

27. Duffy, David Botany
"Small Scale Field Conservation Efforts for Oahu Endangered Native Plants"
11/01/03 - 06/30/04 (New) $40,000
FROM: Hawaii-Dept of Land & Natural Resources
28. Duffy, David  
Botany  
"Assessment of Genetic Diversity of a Population of Abutilon menziesii"  
12/01/03 - 06/30/04 (New)  
$10,843  
FROM: Hawaii-Dept of Land & Natural Resources

29. Duffy, David  
Botany  
"The CGAPS Project: Phase 2 Supplement"  
07/01/03 - 06/30/04 (Supplement)  
$35,000  
FROM: Hawaii-Dept of Land & Natural Resources

30. Duffy, David  
Botany  
"Kauai Avian Conservation Research and Management"  
07/01/03 - 06/30/04 (New)  
$54,000  
FROM: Hawaii-Dept of Land & Natural Resources

31. Duffy, David  
Botany  
"Species-Habitat Models for Native Hawaiian Forest Birds"  
07/01/03 - 06/30/04 (Continuation)  
$30,000  
FROM: Hawaii-Dept of Land & Natural Resources

32. Duffy, David  
Botany  
"Threatened and Endangered Species Recovery: Kauai: Phase 9"  
03/01/04 - 06/30/04 (Continuation)  
$14,600  
FROM: Hawaii-Dept of Land & Natural Resources

33. Duffy, David  
Botany  
"Ko'olau Mountains Watershed Partnership Management Plan Implementation, Phase 2"  
12/01/03 - 06/30/04 (New)  
$75,000  
FROM: Hawaii-Dept of Land & Natural Resources

34. Duffy, David  
Botany  
"Watershed Protection in East Maui"  
07/01/03 - 06/30/04 (New)  
$139,342  
FROM: Hawaii-Dept of Land & Natural Resources

35. Duffy, David  
Botany  
"Project Coordinator for the Ahupua'a of Pu'u Wa'awa'a"  
03/01/04 - 03/30/05 (New)  
$59,500  
FROM: Hawaii-Dept of Land & Natural Resources

36. Duffy, David  
Botany  
"Using the Weed Risk Assessment System for Making Urban Forestry Planting Decisions: Phase 3. Implementation"  
05/01/04 - 12/31/04 (Continuation)  
$50,000  
FROM: Hawaii-Dept of Land & Natural Resources

37. Duffy, David  
Botany  
"Back-up Storage for Critically-Endangered Hawaiian Plant Cultures"  
03/01/04 - 06/30/04 (New)  
$15,000  
FROM: Hawaii-Dept of Land & Natural Resources

38. Duffy, David  
Botany  
"Kure Atoll Base Camp: Phase 2"  
10/01/03 - 06/30/04 (Continuation)  
$18,000  
FROM: Hawaii-Dept of Land & Natural Resources

39. Duffy, David  
Botany  
"West Maui Mountains Watershed Partnership and Tibouchina Biological Control: FY 2004"  
- (Continuation)  
$40,000  
FROM: Maui-Dept of Water Supply

40. Duffy, David  
Botany  
"State West Maui Watershed Partnership: Phase 4"  
07/01/03 - 06/30/04 (Continuation)  
$212,000  
FROM: Hawaii-Dept of Land & Natural Resources

41. Duffy, David  
Botany  
"Restoration Research on Oahu's Lowland Rare Plants: Year 3 Supplement 3"  
07/01/03 - 06/30/04 (Supplement)  
$10,000  
FROM: Hawaii-Dept of Land & Natural Resources

42. Duffy, David  
Botany  
"Hamakua Wetland Coordinator: Phase 3"  
03/01/04 - 08/30/04 (Continuation)  
$24,570  
FROM: Hawaii-Dept of Land & Natural Resources

43. Duffy, David  
Botany  
"Coordination and Planning of Programmatic Habitat Conservation Plan for Endangered and Threatened Seabirds on Kauai, Hawaii"  
06/09/04 - 06/30/06 (New)  
$111,510  
FROM: Hawaii-Dept of Land & Natural Resources

44. Duffy, David  
Botany  
"Landowner Assistance Program and Safe Harbor for Endangered Species"  
06/09/04 - 06/30/08 (Continuation)  
$255,410  
FROM: Hawaii-Dept of Land & Natural Resources
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<td>UHH- Social Science</td>
<td>Update/Evaluate Spatial Database</td>
<td>&quot;Survey of Revenues and Employment in Hawaii’s Ocean Science and Technology Industry&quot;</td>
<td>03/01/03 - 09/15/03</td>
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<td>Validation Survey of Student Immunizations in Hawai'i's Colleges and Schools</td>
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<td>&quot;Development of Commercial Hawaiian Banana Varieties Resistant to</td>
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<td>&quot;Diagnosis of Arbovirus Infection - Yr 2&quot;</td>
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<td>&quot;Report Card on Violence Prevention&quot;</td>
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<td>&quot;Evaluation of the 2001 Public Housing Drug Elimination Program&quot;</td>
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<td>68. Kaneshiro, Kenneth Y, Pacific Biomed Research Center:</td>
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<td>&quot;Marine Seabirds and Boating Safety Research and Protection&quot;</td>
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<td>72. Kelley, Christopher D, HURL- SOEST:</td>
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<td>&quot;Improvement of Bottomfish Stocks in the Hawaiian Islands: Phase II&quot;</td>
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<td>&quot;Detection and Documentation of Bottomfish Spillover from the</td>
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<td>&quot;Biological and Habitat Assessment of Makuku and Lulumahu Streams</td>
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77. Leonhardt, Kenneth W  Tropical Plant & Soil Science
"Enhancement of the Tropical Flowers and Foliages Industries In Maui County"
06/14/04 - 06/13/05  (New)  $25,000
FROM: Maui-Off of Economic Development

78. Liaw, Bor Yann  Haw Nat Energy Inst -SOEST
"Data Collection and Analysis for the Hybrid Fuel Cell Bus Operated at the Hickam Air Force Base"
05/27/04 - 03/31/05  (New)  $91,000
FROM: Hawaii-High Technology Development Corp

79. Liu, Clark C K  Water Resource Research
"Analytical Groundwater Flow and Transport Modeling for the Estimation of Sustainable Yield of Pearl Harbor Aquifer"
05/01/04 - 04/30/05  (New)  $35,000
FROM: Hawaii-Dept of Land & Natural Resources

80. Maddock, Jason E  Public Health Sciences
"Social Epidemiology Project/Epidemiological Research Related to Public Health"
01/01/04 - 12/31/05  (Continuation)  $615,545
FROM: Hawaii-Dept of Health

81. Maeda, Julienne  Kinesiology & Leisure Sci
"Feasibility in Incorporating Physical Activity and Nutrition Education Interventions into an After School Program as a Method of Achieving Healthy....."
06/10/03 - 09/30/04  (New)  $24,968
FROM: DOH-Community Health Division

82. Mathews, Bruce W  UHH- Agriculture
"Release of Mineral Elements"
01/01/04 - 12/31/05  (New)  $5,000
FROM: County of Hawaii

83. Minerbi, Luciano  Urban & Regional Planning
"Coastal Cultural Resource Study Island of Hawaii"
11/13/03 - 12/30/05  (New)  $82,000
FROM: Hawaii-Off of Hawaiian Affairs

84. Moncur, James E T  Water Resource Research
"A Five-Year Biological and Sediment Monitoring Program on Specific Marine Communities Near the City’s Ocean Sewer Outfalls"
07/30/03 - 09/30/07  (Continuation)  $416,845
FROM: City and County of Honolulu

85. Nagao, Mike A  Tropical Plant & Soil Science
"Culture Management Strategies Associated with Macadamia Varieties"
12/23/03 - 06/22/07  (New)  $5,000
FROM: Hawaii-Dept of Agriculture

86. Nagao, Mike A  Tropical Plant & Soil Science
"Pest Management in Rambutan, Longan and Lychee"
12/23/03 - 06/22/06  (New)  $30,000
FROM: Hawaii-Dept of Agriculture

87. Nakamoto, Stuart T  Human Nutrition, Food & Animal Sci
"Agricultural Marketing In Hawaii"
09/15/03 - 12/31/04  (New)  $10,000
FROM: Hawaii-Dept of Agriculture

88. Niederhauser, Victoria  School of Nursing
"Immunization Focus Group Study (IN-Focus Study)"
10/15/03 - 07/31/04  (New)  $86,770
FROM: Hawaii-Dept of Health

89. Nitz, Lawrence H  Political Science
"Internship for Analysis of 2003 Hunting Bag Survey"
09/01/03 - 12/31/03  (New)  $3,774
FROM: Hawaii-Dept of Land & Natural Resources

90. Pearson, Renee S  Speech
"2003 Hawaii Student Alcohol, Tobacco, and Other Drug Use Study"
11/21/03 - 07/31/04  (Continuation)  $10,000
FROM: DOH-Alcohol & Drug Abuse Division

91. Prevedouros, Panos D  Civil and Environmental Engineering
"Simulation of Westbound Interstate H-1 Freeway Between the Airport Viaduct and Waikele During Weekday Afternoon Peak"
02/11/04 - 02/10/07  (New)  $63,988
FROM: Hawaii-Dept of Transportation

92. Ray, Chittaranjan  Water Resource Research
"Supplemental Funding - Leaching of Selected Pesticides in Hawaii Soils as Affected by Soil Properties and Hydrologic Conditions"
01/01/04 - 07/31/04  (Supplement)  $24,623
FROM: Hawaii-Dept of Agriculture

93. Riggs, H R  Civil and Environmental Engineering
"Instrumenting and Monitoring the Performance of the FRP Shear Strengthening of the Salt Lake Boulevard Bridge"
11/01/03 - 10/31/08  (New)  $390,686
FROM: Hawaii-Dept of Transportation
94. Robertson, Ian N  
Civil and Environmental Engineering  
"Five Year Monitoring of Corrosion Field Specimens"  
06/01/04 - 05/31/09 (New)  
FROM: Hawaii-Dept of Transportation  
$20,599

95. Robertson, Ian N  
Civil and Environmental Engineering  
"Soil Investigation and Soil-Structure Interaction Modeling of the Kealakaha Bridge"  
02/17/04 - 02/16/07 (New)  
FROM: Hawaii-Dept of Transportation  
$60,565

96. Rocheleau, Richard E  
Haw Nat Energy Inst -SOEST  
"Hawaii's Hydrogen Power Park"  
07/01/03 - 09/30/04 (New)  
FROM: Hawaii-Dept of Business & Economic Development  
$284,658

97. Sato, Dwight M  
Plant & Environmental Protection Sci  
"Green Tea Propagation and Nursery Establishment Study as an Alternative Crop for Big Island Growers"  
07/01/03 - 06/30/04 (New)  
FROM: County of Hawaii  
$5,000

98. Senock, Randy S  
UHH- Agriculture  
"Procurement Tree Species In Hawaii"  
08/01/03 - 06/01/04 (New)  
FROM: County of Hawaii  
$5,000

99. Sewake, Kelvin T  
Plant & Environmental Protection Sci  
"Chemical and Cultural Management of Burrowing Nematodes on Anthuriums - Phase I"  
08/01/03 - 05/31/04 (New)  
FROM: County of Hawaii  
$7,800

100. Shintaku, Michael H  
UHH- Agriculture  
"Controlling Mosquito Populations"  
08/01/03 - 06/30/04 (New)  
FROM: County of Hawaii  
$5,000

101. Sipes, Brent S  
Plant & Environmental Protection Sci  
"Pineapple Nematode Management"  
11/12/03 - 05/04/05 (New)  
FROM: Hawaii-Dept of Agriculture  
$30,578

102. Sipes, Brent S  
Plant & Environmental Protection Sci  
"Telone II EC Phytotoxicity to Pineapple"  
06/24/03 - 12/31/03 (New)  
FROM: Hawaii-Dept of Agriculture  
$3,978

103. Sipes, Brent S  
Plant & Environmental Protection Sci  
"Symphytid Damage in Pineapple"  
03/22/04 - 09/21/05 (New)  
FROM: Hawaii-Dept of Agriculture  
$36,509

104. Sugii, Nellie C  
Lyon Arboretum  
"Tissue Culture, Propagation and Storage for Critical Plant Species"  
07/01/03 - 06/30/04 (Continuation)  
FROM: Hawaii-Dept of Land & Natural Resources  
$54,000

105. Taniguchi, Glenn Y  
Plant & Environmental Protection Sci  
"Evaluation of All Potential Post-harvest and Pre-plant Fungicides for Control of Pineapple Fruit Rot, Fruit Mold and Butt Rot"  
12/23/03 - 05/22/06 (New)  
FROM: Hawaii-Dept of Agriculture  
$14,076

106. Turn, Scott Q  
Haw Nat Energy Inst -SOEST  
"Identification and Assessment of Food Waste Generators in Hawaii"  
04/16/04 - 04/15/05 (New)  
FROM: Hawaii-Dept of Agriculture  
$51,300

107. Turn, Scott Q  
Haw Nat Energy Inst -SOEST  
"Technical Support for Use of Bioenergy Resources"  
05/20/04 - 05/19/05 (New)  
FROM: Hawaii-Dept of Business & Economic Development  
$21,500

108. Wiltshire, John C  
HURL - SOEST  
"Marine Minerals Industry Development: Phase III"  
05/01/04 - 05/31/05 (New)  
FROM: Hawaii-Dept of Business & Economic Development  
$10,000

109. Wright, Mark G  
Plant & Environmental Protection Sci  
"Biology and Control of Micro-Lepidoptera on Pineapple"  
11/12/03 - 05/11/05 (New)  
FROM: Hawaii-Dept of Agriculture  
$29,750

110. Yang, Ping-Yi  
Molecular Biosciences & Bioengineering  
"Polluted Runoff Control for Waialee Livestock Farm"  
01/29/04 - 01/28/06 (New)  
FROM: DOH-Clean Water Branch  
$200,000

111. Yost, Russell S  
Tropical Plant & Soil Science  
"Updating Macadamia Nutrient Recommendations: Implementing Crop Logging and Correcting the Apparent Root Inefficiency (Year 3)"  
12/23/03 - 06/22/05 (Continuation)  
FROM: Hawaii-Dept of Agriculture  
$25,000
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<th>Title/Description</th>
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<td>1</td>
<td>Allsopp, Richard</td>
<td>Anatomy- MED</td>
<td>&quot;Castle Research Associates&quot;</td>
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<td>Becker, Catherine</td>
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<td>&quot;Healing Encounters - Healing Island&quot;</td>
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<td>&quot;Determination of Coffee Origins&quot;</td>
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<td>Bryant-Greenwood, Gillian</td>
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<td>&quot;Mechanical and Infection Pathways to Preterm Birth&quot;</td>
<td>10/22/03 - 10/22/04 (New)</td>
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<td>&quot;Sensitive Modulation Spectroscopy for Characterization of Semiconductor Materials&quot;</td>
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<td>Cao, Tongsyu</td>
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<td>&quot;Positional Cloning of a Gene Involved in Keratinocyte Stem Cell Differentiation&quot;</td>
<td>05/12/04 - 05/12/05 (New)</td>
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<td>Chang, Sandra P</td>
<td>Trop Med - Med Micro- MED</td>
<td>&quot;Utilizing the Yeast Two-Hybrid (Y2H) System to Define Specific Interactions between P. falciparum Merozoite Surface Protein-1.42 (MSP1-42) &amp; Host...&quot;</td>
<td>10/09/03 - 01/31/05 (Continuation)</td>
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<td>Cooke, Ian M</td>
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<td>&quot;Glutamate Modulation of Endocrine Secretion in Osmoregulatory Cells&quot;</td>
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<td>&quot;Watershed Protection in East Maui&quot;</td>
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<td>02/24/04 - 02/24/05 (New)</td>
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<td>Easa, David</td>
<td>School of Medicine</td>
<td>&quot;Master Plan to Streamline the IRB Process in the State of Hawaii&quot;</td>
<td>05/12/04 - 05/12/05 (New)</td>
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<td>Electrical Engineering</td>
<td>&quot;Implementation of LDPC Codes&quot;*</td>
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<td>17</td>
<td>Gelber, Rebecca</td>
<td>Medicine- MED</td>
<td>&quot;Incidence of Deep Vein Thrombosis after Elective Total Hip Replacement in Japanese-Americans&quot;</td>
<td>12/03/03 - 12/03/05 (New)</td>
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18. Girton, Richard  
Medicine- MED  
"Mechanism of Elastic Fiber Calcification in MRP6 Deficiency"  
10/22/03 - 10/22/04  (New)  
FROM: HCF-Robert C. Perry Fund  
$47,250  

19. Grandinetti, Andrew  
Pacific Biomed Rsrch Cntr  
"Infrastructure Support for Establishing an Autonomic Function Testing: A Collaboration with the Mayo Clinic"  
10/22/03 - 10/22/04  (New)  
FROM: HCF-Ingeborg V.F. McKee Fund  
$16,212  

20. Ha, Chung-Eun  
School of Medicine  
"Studies on the Myocardial Ischemia Induced Modifications of Albumin by Using Site-Directed Mutagenesis and Novel Protein Expression System"  
09/01/03 - 08/31/05  (New)  
FROM: HCF-Ingeborg V.F. McKee Fund  
$25,000  

21. Holland, Kim N  
Haw Inst Marine Bio-SOEST  
"Manta Ray Tracking Project--Additional Funding"  
11/21/03 - 04/30/05  (Supplement)  
FROM: Univ of Hawaii Foundation  
$10,000  

22. Host-Madsen, Anders  
Electrical Engineering  
"Wireless Communications"  
05/16/03 - 12/31/04  (Continuation)  
FROM: Univ of Hawaii Foundation  
$9,706  

23. Humphreys, Tom D  
Pacific Biomed Rsrch Cntr  
"Biotechnology Initiatives"  
05/22/03 - 06/30/03  (New)  
FROM: Univ of Hawaii Foundation  
$4,300  

24. Iskander, Magdy F  
HCAC (HI Ctr for Advanced Communication  
"Smart Antenna"  
08/20/02 - 12/31/03  (Supplement)  
FROM: Univ of Hawaii Foundation  
$7,779  

25. Iskander, Magdy F  
HCAC (HI Ctr for Advanced Communication  
"Smart Antenna"  
01/01/04 - 01/01/05  (Supplement)  
FROM: Univ of Hawaii Foundation  
$38,807  

26. Kim, Min-Sun  
Speech  
"Developing Infrastructure and Resources for Smoking Cessation for Korean Immigrants in Hawaii"  
12/01/03 - 12/01/05  (New)  
FROM: HCF-Tobacco Prevention & Control Trust Fund  
$59,994  

27. Kuo, Phillip  
School of Medicine  
"Immunologic Control of Viral Setpoint in Drug Resistant HIV Infection"  
06/01/04 - 08/31/05  (New)  
FROM: HCF-Geist Foundation  
$35,450  

28. LaBotz, Michele  
Fam Prac & Comm Hlth- MED  
"Effects of Intermittent Hypoxic Exposure on Heart Rate Variability"  
05/12/04 - 05/12/05  (New)  
FROM: HCF-Hawaii Community Foundation - General Fund  
$48,085  

29. Le Saux, Olivier  
Pacific Biomed Rsrch Cntr  
"Regulation of the ABCCS Gene Expression"  
08/01/03 - 07/31/04  (New)  
FROM: HCF-Ingeborg V.F. McKee Fund  
$50,000  

30. Lee, Hye-ryeon  
Cancer Research Center  
"Exercise and Relational Support-based Smoking Cessation Program Tailored for College Student Smokers"  
12/01/03 - 12/01/05  (New)  
FROM: HCF-Tobacco Prevention & Control Trust Fund  
$59,997  

31. Li, Ping An  
Pacific Biomed Rsrch Cntr  
"Role of Lysyl Oxidase in Angiogenesis: A Novel Target for Anti-Cancer Therapy"  
10/22/03 - 10/22/04  (New)  
FROM: HCF-Ingeborg V.F. McKee Fund  
$50,000  

32. Malhotra, Vinod  
Electrical Engineering  
"VLSI Enrichment, #121-8870-4"  
10/15/03 - 05/15/04  (New)  
FROM: Univ of Hawaii Foundation  
$24,961  

33. Maskarinec, Gertraud  
Cancer Research Center  
"Developing a Soy-Based Intervention Among Healthy Men"  
10/01/03 - 09/30/04  (New)  
FROM: Univ of Hawaii Foundation  
$44,625  

34. Mayeda, David  
Psychiatry- MED  
"State Incentive Grant for Kaimuki/Palolo"  
08/01/03 - 07/31/04  (New)  
FROM: Boys and Girls Club of Hawaii  
$9,000
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<td>35. Mayeda, David</td>
<td>Psychiatry- MED</td>
<td>State Incentive Grant for Nuuanu/Makiki</td>
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<td>Boys and Girls Club of Hawaii</td>
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<td>36. Mercier, Frederic</td>
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<td>Are Brain Neural Stem Cells Replenished by White Blood Cells Throughout Adulthood?</td>
<td>$50,000</td>
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<td>05/12/04 - 05/12/05</td>
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<td>Transgenesis Gene-Therapy with Vectors</td>
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<td>06/01/04 - 08/31/05</td>
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<td>38. Nagata, Norman M</td>
<td>Tropical Plant &amp; Soil Science</td>
<td>Evaluation of Bermudagrasses</td>
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<td>Hawaii Golf Course Superintendents Association</td>
<td>02/01/04 - 01/31/05</td>
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<td>39. Nerurkar, Vivek R</td>
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<td>Kawasaki Disease Research</td>
<td>$15,000</td>
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<td>11/01/03 - 02/29/04</td>
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<td>Kawasaki Disease Research</td>
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<td>03/01/04 - 01/31/06</td>
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<td>41. O'Riordan, David</td>
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<td>Cancer Research Center</td>
<td>Tobacco Prevention for Hawaii's Multietnic Youth</td>
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<td>09/01/03 - 09/10/04</td>
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<td>Microbiology</td>
<td>Programmed Cell Death and Cancer Progression</td>
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<td>07/16/03 - 12/31/03</td>
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<td>46. Robinow, Steven N</td>
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<td>Understanding NR2E3 Function: A Nuclear Receptor Involved in Photoreceptor Differentiation and Degeneration</td>
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<td>49. Seaver, Elaine</td>
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<td>Molecular Regulation of Asymmetric Segregation of Developmental Regulatory Genes in Identified Embryonic Cells</td>
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<td>Anti-diabetic Potential of a Plant Chalcone In Insulin Resistant Hamsters</td>
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<td>Human Nutrition, Food &amp; Animal Sci</td>
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<td>05/12/04 - 05/12/05</td>
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**Hawaii- Business and Other**

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13. Graves, Michael W  Anthropology  
"Developing a Computerized Database System for the Excavated Materials from the Nu'alolo-kai Site, an Ancient Hawaiian Settlement on the Island of ......"  
08/15/03 - 12/15/04  (New)  $4,598  
FROM: Hawaii Council for the Humanities

14. Hara, Arnold H  Plant & Environmental Protection Sci  
"Addressing Phytosanitary Barriers to Cut Flower Exports"  
05/01/04 - 02/28/05  (New)  $63,750  
FROM: Hawaii Agriculture Research Center

15. Hemscheidt, Thomas K  Chemistry  
"Identification of Metalloproteinase Inhibitors from Hawaiian Natural Products Extracts for Commercialization as Counterbioterrorism Therapeutics"  
05/01/03 - 12/31/03  (New)  $32,030  
FROM: Hawaii Biotechnology Group, Inc

16. Howerton, Robert D  Sea Grant - SOEST  
"Sturgeon Aquaculture in Hawaii - Year 2"  
07/04/04 - 06/30/05  (New)  $11,335  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

17. Humphreys, Tom D  Pacific Biomed Rsrch Cntr  
"Development of Natural Product and Combinatorial Synthetic Lead Compounds for Anti-Anthrax/Botulinum Bacterial Proteinase Pharmaceuticals"  
08/01/03 - 05/11/04  (New)  $237,079  
FROM: Hawaii Biotechnology Group, Inc

18. Iskander, Magdy F  HCAC (HI Ctr for Advanced Communication  
"Novel Low Cost Phase Shifters Design Based on the Ferroelectric Materials Technology"  
02/15/04 - 02/14/05  (New)  $50,000  
FROM: TREC Hawaii LLC

"Coral Recruitment and Habitat Surveys in Hanalei Bay"  
10/01/03 - 12/31/05  (New)  $39,019  
FROM: Hanalei Watershed Hui

20. Landry, Michael R  Oceanography - SOEST  
"Plankton Community Biomass and Composition in Mamala Bay, Oahu (RASP III, September 2003)"  
11/28/03 - 06/30/04  (Supplement)  $7,791  
FROM: Oceanit Laboratories, Inc

21. Leung, Ping S  Molecular Biosciences & Bioengineering  
"Economic Feasibility for Freshwater Ornamental Fish Growers in Hawaii to Market Their Products"  
12/01/03 - 11/30/04  (New)  $29,814  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

22. Lewis, Teresa  Haw Inst Marine Bio-SOEST  
"Disease Management in Hawaiian Aquaculture, Year 10"  
12/01/03 - 11/30/04  (New)  $32,606  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

23. Liao, Bor Yann  Haw Nat Energy Inst -SOEST  
"Advanced Lithium Ion Battery Testing"  
09/29/03 - 09/30/04  (Supplement)  $87,600  
FROM: Hawaii Electric Vehicle Demonstration Project

24. Lu, Yuanan  Pacific Biomed Ranch Cntr  
"Disease Management in Hawaiian Aquaculture, Year Eleven"  
12/01/03 - 11/30/04  (Renewal)  $12,960  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

25. Mackenzie, Fred T  Oceanography - SOEST  
"Continuation of Water Quality Monitoring in Hawaii Kai Marina"  
01/01/04 - 12/31/04  (Continuation)  $18,000  
FROM: Hawaii Kai Marina Community Association

"NCI Pilot Project: Feasibility of an Afterschool Program to Reduce Obesity in Hawaiian Youth"  
09/01/03 - 09/30/04  (New)  $45,957  
FROM: Papa Ola Lokahi

27. Miyashiro, Sharon Y  Social Science Rsrch Inst  
"Hawaii Renewable Energy Policy Forum"  
12/31/03 - 06/30/04  (Supplement)  $30,000  
FROM: Hawaiian Electric Co Inc

28. Mueller-Dombois, Dieter  Botany  
"PABITRA Network for Collaborative Research on the Ecology of Global Change in Island Landscapes of the Tropical Pacific"  
04/01/03 - 03/31/04  (New)  $31,815  
FROM: Asia-Pacific Network for Global Change Research
29. Ooi, Phillip S K  
Civil and Environmental Engineering  
"Integral Abutment Bridges when the Abutments are Supported on Concrete Deep Foundation Elements"  
05/16/04 - 05/15/07  (New)  
$108,866  
FROM: KSF Inc

30. Pauli, Robert E  
Tropical Plant & Soil Science  
"Postharvest Handling and Storage of Limu"  
12/01/03 - 11/30/04  (New)  
$24,987  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

31. Pauli, Robert E  
Tropical Plant & Soil Science  
"Addressing Phytosanitary Barriers to Cut Flower Exports"  
03/01/04 - 02/28/05  (New)  
$63,750  
FROM: Hawaii Agriculture Research Center

32. Ray, Chittaranjan  
Water Resource Research  
"A Soil Column Study of the Transport of Selected Contaminants in Recycled Water in a Hawaii Soil"  
04/05/04 - 04/04/05  (New)  
$122,887  
FROM: Brown & Caldwell

33. Russo, Gerard G  
Social Science Rsrch Inst  
"State Planning Grant Program - Supplemental Grant Funds"  
09/01/03 - 08/31/04  (Supplement)  
$120,315  
FROM: Research Corp, University of Hawaii

34. Russo, Gerard G  
Social Science Rsrch Inst  
"State Planning Grant Program - Supplemental Grant Funds"  
09/01/03 - 08/31/04  (Supplement)  
$4,500  
FROM: Research Corp, University of Hawaii

35. Sakai, William S  
UHH- Agriculture  
"Analysis of Organic Fish Fertilizer"  
03/17/04 - 08/01/04  (New)  
$15,000  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

36. Sun, Plera S  
Pacific Biomed Rsrch Ctr  
"Purification of White Spot Virus from WSV-Infected Shrimp and Isolation of RNA Therefrom"  
12/01/03 - 05/31/04  (New)  
$116,350  
FROM: P&R, LLC

37. Tamara, Clyde S  
Sea Grant - SOEST  
"Aquaculture of Hawaiian Marine Invertebrates for the Marine Ornamental Trade Year 2"  
10/01/03 - 09/30/04  (Continuation)  
$23,000  
FROM: Oceanic Institute-Ctr for Trop & Subtrop Aqua

38. Turn, Scott Q  
Haw Nat Energy Inst -SOEST  
"Technical Support for Hawaiian Commercial & Sugar Co. Energy Assessment"  
06/15/03 - 04/30/04  (New)  
$49,961  
FROM: Hawaiian Commercial & Sugar Co

39. Yang, Ping-Yi  
Molecular Biosciences & Bioengineering  
"Development and Design of Innovative Bioreactors to Remove PCBs from Oil at Pearl Harbor, Hawaii"  
03/02/04 - 09/30/04  (Supplement)  
$6,000  
FROM: Dawson Group, Inc

Hawaii- Health Organizations

1. Ceria, Clementina D  
Nursing  
"Pacific Genetic Epidemiology Study on Aging"  
09/01/03 - 12/31/03  (Continuation)  
$6,648  
FROM: Kuakini Medical Cntr

2. Ceria, Clementina D  
Nursing  
"Pacific Genetic Epidemiology Study on Aging"  
01/01/04 - 05/31/04  (Continuation)  
$8,310  
FROM: Kuakini Medical Cntr

3. Glanz, Karen  
Cancer Research Center  
"The National Lung Screening Trial (NLST) - LSG Expansion"  
07/01/03 - 06/30/04  (Continuation)  
$4,912  
FROM: Pacific Health Research Institute

4. Hardman, John M  
Pathology- MED  
"Risk Factors for Pathological Markers - Parkinson's Disease"  
09/01/03 - 08/31/04  (Continuation)  
$24,169  
FROM: Pacific Health Research Institute

5. Rodriguez, Beatriz L  
Public Health Sciences  
"Staffing Support for 'Genetic Determinants of Human Hypertension' (Family Blood Pressure Program)"  
07/01/03 - 06/30/04  (Continuation)  
$32,952  
FROM: Pacific Health Research Institute
6. Rodriguez, Beatriz L  Public Health Sciences  
"PacGen II - Pacific Genetic Epidemiologic Study on Aging"  
09/01/03 - 08/31/04 (Continuation)  $97,500  
FROM: Kuakini Medical Ctr  

7. Wilcox, Bruce  School of Medicine  
"Strengthening Community Capacity for Health in Waimanalo"  
01/01/04 - 12/31/04 (New)  $32,206  
FROM: Hawaii Medical Services Assoc Foundation  

8. Wilkinson, Robert W  Cancer Research Center  
"Cooperative Research Agreement for Children's Oncology Group Trials"  
07/01/04 - 06/30/06 (Continuation)  $258,573  
FROM: Kapiolani Medical Center  

Mainland- Associations, Foundation, Soc, etc.  

1. Furumoto, Nancy L  Cancer Research Center  
"NSABP STAR Prevention (PFED 19-HAW-01), Amendment #5, Master Purchased Services Agreement (Including CO-STAR)"  
05/01/03 - 05/31/04 (Continuation)  $20,625  
FROM: NSABP Foundation Inc  

2. Furumoto, Nancy L  Cancer Research Center  
"NSABP STAR Prevention (PIND-HAW-01), Amendment #4, Prevention Industrial Master Purchased Services Agreement"  
07/01/03 - 06/30/04 (Continuation)  $51,000  
FROM: NSABP Foundation Inc  

3. Goodman, Marc T  Cancer Research Center  
"Record Consolidation Project"  
04/01/04 - 04/30/04 (New)  $5,000  
FROM: North American Assoc of Central Cancer Reg (NAACCR)  

4. Hartline, Daniel K  Pacific Biomedic Ranch Ctr  
"Support of Biomedical Research at the Bekesy Laboratory"  
01/01/04 - 12/31/04 (Renewal)  $50,000  
FROM: Cades Fund  

5. Inouye, Jillian  Nursing  
"Effects on Telehealth Augmentation of a Home Nursing Care Program for Women with Children at Risk for Child Abuse and Neglect"  
12/02/03 - 07/31/04 (Continuation)  $13,000  
FROM: Jackson Foundation (Henry M. Jackson)  

6. Kolonel, Laurence N  Cancer Research Center  
"Comparative Epidemiologic Studies of Genetic & Environmental Factors in Carcinogenesis"  
10/01/03 - 09/30/04 (New)  $34,075  
FROM: Jackson Foundation (Henry M. Jackson)  

7. Leung, Ping S  Molecular Biosciences & Bioengineering  
"Contribution of Commercial Aquaculture to Food Security and Economic Growth and Development in Caribbean, Latin America and Sub-Saharan Africa"  
05/01/03 - 07/31/04 (New)  $28,000  
FROM: United Nations Food and Agriculture Organ (FAO)  

8. Leung, Ping S  Molecular Biosciences & Bioengineering  
"Comparative Advantage of Selected Commercial Aquaculture Species in the Caribbean, Latin America, and Sub-Saharan Africa"  
11/01/03 - 09/30/04 (New)  $28,000  
FROM: United Nations Food and Agriculture Organ (FAO)  

9. Maskarinec, Gertraud  Cancer Research Center  
"Developing Research on Soy Consumption and Breast Tissue Proliferation"  
07/01/03 - 05/31/04 (New)  $10,000  
FROM: United Soybean Board  

10. Michael, Katja  Chemistry  
"Phototransamination as a Convergent Approach to N-glycopeptides"  
09/01/03 - 08/31/05 (New)  $35,000  
FROM: American Chemical Society - Petroleum Res Fund  

11. Oishi, Robert H  Cancer Research Center  
"NSABP Breast Cancer Prevention Trial (PFED15-HAW01)"  
06/01/00 - 05/31/01 (Continuation)  $9,000  
FROM: NSABP Foundation Inc  

12. Schoonmaker, Jane S  Oceanography - SOEST  
"Interannual to Decadal Variations of Paleoclimate in the North Central Pacific: Interpretation from a Laminated Sediment Sequence in Hawaii"  
08/01/03 - 08/31/05 (New)  $80,000  
FROM: American Chemical Society - Petroleum Res Fund  

13. Sipes, Brent S  Plant & Environmental Protection Sci  
"IPM Practices to Reduce Organophosphate and Carbamate Pesticide Usage in Pineapple"  
08/20/03 - 12/31/05 (New)  $73,390  
FROM: American Farmland Trust, Inc
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### Mainland- Business

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<td>&quot;A Multicenter, Multinational, Randomized, 2x2 Factorial Design Study to Evaluate the Effects of LANTUS (Insulin Glargine) versus Standard Care and...&quot;</td>
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<td>&quot;A 24-Week Randomized, Double-Blind, Double-Dummy, Multicenter Study to Evaluate the Safety, Efficacy, and Tolerability of Modified-Release Avandia...&quot;</td>
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10. Chai, Sun-Ki
Sociology
"Cultural Differences Modeling"
11/29/03 - 05/16/04 (Continuation)
FROM: 21st Century Systems, Inc
$12,071

11. Chen, John C
Physiology-MED
"CHOOSE: A Phase II Study Angiomax (bivalirudin) in Patients with HIT/HITTs Type II Undergoing Off-Pump Coronary Artery Bypass (OPCAB) Surgery -"
01/16/04 - 08/14/04 (New)
FROM: The Medicines Company
$18,000

12. Chin, David N
Info & Computer Science
"User Modeling for IBCWD"
09/23/03 - 09/30/04 (New)
FROM: Quantum Leap Innovations, Inc
$75,000

13. Chin, David N
Info & Computer Science
"Hawaii Tsunami Scenario for IBCWD"
03/22/04 - 09/30/04 (New)
FROM: Quantum Leap Innovations, Inc
$124,783

14. Coimbra, Carlos F
Mechanical Engineering
"Theoretical Support for Shiva"
01/20/04 - 04/30/04 (Supplement)
FROM: MetroLaser Inc
$2,463

15. Coimbra, Carlos F
Mechanical Engineering
"Theoretical Support for SHIVA"
03/02/04 - 04/30/04 (Renewal)
FROM: MetroLaser Inc
$1,038

16. Fischer, Gregor
Civil and Environmental Engineering
"Development and Performance Assessment of PVA-Fiber Reinforced Cementitious Composites for Wall Panel Applications"
08/25/03 - 08/24/04 (New)
FROM: Advanced Wall Systems, LLC
$75,000

17. Franke, Adrian A
Cancer Research Center
"Isoflavonoids in Infants Consuming Isoflavonoid Containing Breast Milk: Influence of Baby's Age and Developmental Effects"
07/01/03 - 12/31/04 (Continuation)
FROM: Solae, LLC
$27,500

18. Grace, J Kenneth
Plant & Environmental Protection Sci
"Evaluation of Subterranean Termite Behavior and Control"
07/01/03 - 06/30/04 (Continuation)
FROM: Dow AgroSciences
$15,000

19. Grace, J Kenneth
Plant & Environmental Protection Sci
"Evaluation of Subterranean Termite Behavior and Control"
07/13/04 - 12/31/05 (Continuation)
FROM: Dow AgroSciences
$20,000

20. Hadfield, Michael G
Pacific Biomed Ranch Cntr
"Research Funds for Biofouling"
10/01/03 - 09/30/04 (Supplement)
FROM: Compact Membrane Systems, Inc
$5,000

21. Hadfield, Michael G
Pacific Biomed Ranch Cntr
"Biofouling Research Funds"
07/01/03 - 06/30/04 (Supplement)
FROM: PPG Industries, Inc
$3,256

22. Hadfield, Michael G
Pacific Biomed Ranch Cntr
"Luna Research Funds"
04/01/04 - 03/31/05 (New)
FROM: Luna Innovations
$4,576

23. Hall, Donald N B
Institute for Astronomy
"JWST NiRCam Focal Plane Array Testing Subcontract"
12/05/03 - 04/30/04 (New)
FROM: Rockwell Scientific Company LLC
$40,000

24. Hall, Donald N B
Institute for Astronomy
"JWST NiRCam Focal Plane Array Testing Subcontract"
04/22/04 - 07/15/04 (Continuation)
FROM: Rockwell Scientific Company LLC
$40,000

25. Hamnett, Michael P
Social Science Rsch Inst
"Liquid Natural Gas (LNG)"
11/15/03 - 12/31/04 (New)
FROM: ChevronTexaco Corp
$25,000

26. Hihara, Lloyd H
Mechanical Engineering
"Hawaii Corrosion Project"
05/17/03 - 07/31/03 (Supplement)
FROM: Concurrent Technologies Corporation
$13,946
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<th>#</th>
<th>Name</th>
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<td>Hihara, Lloyd H</td>
<td>Mechanical Engineering</td>
<td>&quot;Advanced-Electronic Materials Reliability Project&quot;</td>
<td>07/01/03 - 07/01/04 (New)</td>
<td>$25,000</td>
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<td>28</td>
<td>Iskander, Magdy F</td>
<td>HCAC HI Ctr for Advanced Communication</td>
<td>&quot;Low Cost MMW Phase Shifter&quot;</td>
<td>11/07/03 - 08/31/04 (New)</td>
<td>$75,000</td>
<td>Raytheon Company</td>
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<td>29</td>
<td>Issell, Brian F</td>
<td>Cancer Research Center</td>
<td>&quot;CRCH 0305: An Open-Label Phase II/III Study of Rituximab in Combination with Recombinant Human IL-2 (IL-2) for Relapsed Low-Grade or Follicular ...&quot;</td>
<td>10/29/03 - 10/29/07 (New)</td>
<td>$53,806</td>
<td>Chiron Corporation</td>
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<td>Issell, Brian F</td>
<td>Cancer Research Center</td>
<td>&quot;CRCH 9818 Core Database Lock Incentive, Part One and Part Two&quot;</td>
<td>12/20/00 - 02/20/04 (New)</td>
<td>$500</td>
<td>Novartis Pharmaceuticals Corp</td>
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<td>31</td>
<td>Issell, Brian F</td>
<td>Cancer Research Center</td>
<td>&quot;CRCH 0301: A Phase III Randomized, Open-Label, Multicenter Study of irinotecan and Cetuximab vs irinotecan as Second-Line Treatment in Patients ...&quot;</td>
<td>02/25/04 - 03/31/08 (New)</td>
<td>$35,000</td>
<td>PPD Development</td>
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<td>Kuh, Anthony</td>
<td>Electrical Engineering</td>
<td>&quot;Feature Extraction and Sensor Fusion&quot;</td>
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<td>$25,000</td>
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<td>33</td>
<td>Landis, Dan</td>
<td>UHH- Psychology</td>
<td>&quot;International Journal FY 2003&quot;</td>
<td>09/01/02 - 09/31/04 (Continuation)</td>
<td>$14,500</td>
<td>Elsevier Science Ltd.</td>
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<td>Lee, Hye-ryeon</td>
<td>Speech</td>
<td>&quot;Evaluation and Dissemination of FCP Study Results&quot;</td>
<td>10/01/03 - 09/30/04 (New)</td>
<td>$42,054</td>
<td>Health Research, Inc</td>
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<td>35</td>
<td>Lin, Haosheng</td>
<td>Institute for Astronomy</td>
<td>&quot;Haleakala ATST Site Survey Preparation&quot;</td>
<td>01/04/02 - 08/31/02 (New)</td>
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<td>&quot;Advanced Technology Solar Telescope Site Survey Instruments Operation&quot;</td>
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<td>Electrical Engineering</td>
<td>&quot;The Study of Transport in Heterostructure Devices, MEMS, and Applications&quot;</td>
<td>07/01/03 - 07/01/04 (Supplement)</td>
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<td>38</td>
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<td>Haw Inst Geophys &amp; Planet</td>
<td>&quot;Airborne Hyperspectral Imager Support to SAIC Data Collection&quot;</td>
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<td>39</td>
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<td>Haw Inst Geophys &amp; Planet</td>
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<td>&quot;UH Support to WAAMD for '04&quot;</td>
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<td>&quot;UH Support to WAAMD For '04&quot;</td>
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44. McClatchey, Will C
   Botany
   "BIOPHORIX - University of Hawaii Collaborative Research Agreement"
   12/03/03 - 12/02/07 (New) $790,540 FROM: Biophorix, Inc

45. Mickey, Donald L
   Institute for Astronomy
   "Energetization of Solar Activity"
   01/01/04 - 12/31/04 (Continuation) $8,969 FROM: Lockheed Missiles & Space Co, Inc

46. Mobley, Joseph R
   UH-West Oahu
   "Assessing the Feasibility of Ship-Mounted Radar to Avoid Collisions with Great Whales - Phase II"
   08/01/03 - 04/30/04 (Continuation) $100,000 FROM: Arcte Associates

47. Moore, Gregory F
   Geology & Geophys - SOEST
   "Prestack Depth Migration of New Nankai Trough Seismic Reflection Lines"
   07/15/03 - 07/15/04 (New) $26,750 FROM: JOL Inc

48. Moreland, Victor
   Water Resource Research
   "Oil and Grease Pilot Program"
   10/01/03 - 09/30/05 (New) $89,669 FROM: General Growth Properties, Inc (GGP)

49. Mougins-Mark, Peter J
   Haw Inst Geophys & Planet
   "Remote Sensing Data Products for Disaster Managers in the Western Pacific"
   07/07/03 - 08/31/03 (Continuation) $10,140 FROM: Raytheon Company

50. Mougins-Mark, Peter J
    Haw Inst Geophys & Planet
    "Remote Sensing Data Products for Disaster Managers in the Western Pacific"
    02/01/03 - 01/31/04 (Supplement) $153,925 FROM: Raytheon Company

51. Mougins-Mark, Peter J
    Haw Inst Geophys & Planet
    "Remote Sensing Data Products for Disaster Managers in the Western Pacific"
    02/01/04 - 02/29/04 (Continuation) $30,515 FROM: Raytheon Company

52. Mougins-Mark, Peter J
    Haw Inst Geophys & Planet
    "Remote Sensing Data Products for Disaster Managers in Western Pacific"
    05/03/04 - 06/04/04 (Continuation) $12,131 FROM: Raytheon Company

53. Mougins-Mark, Peter J
    Haw Inst Geophys & Planet
    "Remote Sensing Data Products for Disaster Managers in Western Pacific"
    06/05/04 - 07/31/04 (Continuation) $49,097 FROM: Raytheon Company

54. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "Gamma Analysis of ASM i-Layers"
    07/07/03 - 07/11/03 (New) $585 FROM: e-Phocus, Inc

55. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "A Novel Insulating Thin Film for High Efficiency Photovoltaics using Metallic Substrates"
    07/29/03 - 07/29/04 (New) $48,000 FROM: Triton Systems, Inc

56. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "Amorphous Silicon Films and Diodes"
    07/10/03 - 09/01/03 (New) $2,500 FROM: e-Phocus, Inc

57. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "Amorphous Silicon Films and Diodes"
    10/14/03 - 12/31/03 (Supplement) $2,500 FROM: e-Phocus, Inc

58. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "Cube Sensor Coating Feasibility Study"
    12/17/03 - 12/19/03 (New) $3,000 FROM: Irvine Sensors Corp

59. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "Amorphous Silicon Films and Diodes"
    12/18/03 - 06/30/04 (Renewal) $5,000 FROM: e-Phocus, Inc

60. Rocheleau, Richard E
    Haw Nat Energy Inst -SOEST
    "Microcrystalline Silicon Films"
    06/04/04 - 07/01/04 (New) $1,370 FROM: e-Phocus, Inc
61. Sasaki, Galen H  
**Electrical Engineering**

"Optical Network Design for Traffic Growth and Uncertainty"
08/01/03 - 07/31/04  (New)  $41,482
FROM: Cisco Systems, Inc

62. Sharma, Shiv K  
**Haw Inst Geophys & Planet**

"Raman Spectroscopy Support for the Laser Interrogation of Surface Agents (LISA) Program"
01/01/04 - 12/30/04  (Continuation)  $25,000
FROM: ITT Industries

63. Shiroma, Wayne A  
**Electrical Engineering**

"Modeling and Circuit Design for Antimonide-Based Semiconductor Devices"
05/01/03 - 10/25/03  (Continuation)  $17,500
FROM: Northrop Grumman

64. Shiroma, Wayne A  
**Electrical Engineering**

"Advanced MMIC Technology"
07/01/03 - 07/01/04  (Continuation)  $25,000
FROM: Northrop Grumman

65. Shiroma, Wayne A  
**Electrical Engineering**

"Circuit Design for Intelligent RF Front Ends"
07/02/03 - 08/30/03  (Renewal)  $25,000
FROM: Northrop Grumman

66. Shiroma, Wayne A  
**Electrical Engineering**

"Circuit Design for Intelligent FR Front Ends"
12/31/03 - 09/05/05  (Supplement)  $12,500
FROM: Northrop Grumman

67. Shiroma, Wayne A  
**Electrical Engineering**

"Modeling and Circuit Design for Antimonide-Based Semiconductor Devices"
10/27/03 - 07/25/04  (Continuation)  $43,750
FROM: Northrop Grumman

68. Symos, Vassillis L  
**Electrical Engineering**

"Integrated Vehicle Health Management (IVHM) using Multiple-Model Adaptive Estimation"
03/03/03 - 12/12/03  (New)  $29,500
FROM: Boeing Aerospace Co

69. Symos, Vassillis L  
**Electrical Engineering**

"Vehicle Health Monitoring System Demonstration using Multiple Diagnostic Algorithms"
12/01/03 - 02/12/04  (New)  $170,000
FROM: Boeing Aerospace Co

70. Symos, Vassillis L  
**Electrical Engineering**

"Integrated Vehicle Health Management (IVHM) using Multiple-Model Adaptive Estimation"
10/01/03 - 09/30/04  (Supplement)  $30,000
FROM: Boeing Aerospace Co

71. Symos, Vassillis L  
**Electrical Engineering**

"Vehicle Health Monitoring System Demonstration using Multiple Diagnostic Algorithms"
02/12/04 - 02/28/05  (Continuation)  $395,000
FROM: Boeing Aerospace Co

72. Valcour, Victor G  
**School of Medicine**

"A Controlled Dose Finding Study of NGX-4010"
11/01/03 - 10/31/04  (New)  $25,000
FROM: NeurogesX, Inc

73. Wiltshire, John C  
**HURL - SOEST**

"Submersible Support for "Lo'ihi Seamount: A Film Documentary"
12/01/03 - 12/31/03  (New)  $22,551
FROM: Pangolin Pictures, Inc

74. Wood, D William  
**Social Science Rsrch Inst**

"Arrestee Drug Abuse Monitoring"
10/01/03 - 12/31/04  (Continuation)  $94,950
FROM: National Opinion Research Center

75. Zinin, Pavel  
**Haw Inst Geophys & Planet**

"Nondestructive Characterization of Nanostructured DLC Coatings by Scanning Acoustic Microscopy, Brillouin Spectroscopy, and Ultrasonic Atomic Force"
11/01/03 - 10/31/04  (Supplement)  $25,000
FROM: Caterpillar Inc

**Mainland- Health Organizations**

1. Burgess, Lawrence P A  
**Dean’s Office- MED**

"Genetic Screening in Diabetes"
11/01/03 - 10/31/04  (New)  $223,197
FROM: Children’s Hospital of Pittsburgh
2. Derauf, D Christian  
   Pediatrics- MED  
   "Prenatal Methamphetamine Exposure and Child Development"  
   09/01/03 - 08/31/04  (Continuation)  $292,595  
   FROM: Emma Pendleton Bradley Hospital

3. Glanz, Karen  
   Cancer Research Center  
   "Physician Survey on Colorectal Cancer Screening"  
   07/25/03 - 01/25/04  (New)  $12,000  
   FROM: American Cancer Society

4. Haning III, William F  
   Psychiatry- MED  
   "Prenatal Methamphetamine Exposure and Child Development"  
   09/01/02 - 08/31/03  (Continuation)  $57,937  
   FROM: Emma Pendleton Bradley Hospital

5. Issell, Brian F  
   Cancer Research Center  
   "Study E1199"  
   11/14/03 - 12/31/03  (New)  $11,200  
   FROM: Southwest Oncology Group

6. Jourdan-Le Saux, Claude  
   Pacific Biomed Rsrch Cntr  
   "Involvement of interleukin-4 in Airway Remodeling: Activation of the Lung Fibroblasts"  
   07/01/03 - 06/30/04  (New)  $35,000  
   FROM: American Lung Association

7. Lau, Alan F  
   Cancer Research Center  
   "Phosphorylation of Gap Junction Proteins"  
   05/01/03 - 04/30/04  (Continuation)  $25,000  
   FROM: Hutchinson (Fred) Cancer Research Center

8. Le Marchand, Loic  
   Cancer Research Center  
   "The Familial Colorectal Neoplasia Collaborative Group"  
   08/01/00 - 07/31/02  (Supplement)  $17,600  
   FROM: Mayo Clinic Foundation

Mainland- Other

1. Anderson, F Scott  
   Haw Inst Geophys & Planet  
   "A Rugged Miniature Mass-Spectrometer for Measuring Aqueous Geochemistry on Mars"  
   02/05/04 - 02/04/05  (New)  $75,000  
   FROM: Jet Propulsion Lab

2. Applegate, T Bruce  
   Haw Inst Geophys & Planet  
   "HMRG Provides SEAMAP Support Services to NAVOCEANO"  
   05/01/03 - 08/31/03  (Supplement)  $5,284  
   FROM: Naval Oceanographic Office

3. Applegate, T Bruce  
   Haw Inst Geophys & Planet  
   "Hawaii Mapping Research Group: Support of DSL-120A Field Operations, CY2004"  
   01/08/04 - 12/31/04  (New)  $189,109  
   FROM: Woods Hole Oceanographic Inst

4. Boegaard, Ann M  
   Institute for Astronomy  
   "Boron in F Stars in the Hyades - Insights into the Li-Be Dip"  
   10/01/03 - 09/30/05  (New)  $57,191  
   FROM: Space Telescope Science Institute

5. Bresolin, Fabio  
   Institute for Astronomy  
   "The Physical Parameters and Stellar Winds of Hot, Massive Stars at High Metallicly: O-stars in the Andromeda Galaxy"  
   08/01/03 - 07/31/05  (New)  $6,892  
   FROM: Space Telescope Science Institute

6. Bresolin, Fabio  
   Institute for Astronomy  
   "The Physical Parameters and Stellar Winds of Hot, Massive Stars at High Metallicly: O-stars in the Andromeda Galaxy"  
   10/07/03 - 09/30/05  (Supplement)  $20,678  
   FROM: Space Telescope Science Institute

7. Carpenter, James R  
   Human Nutrition, Food & Animal Sci  
   "Effects of Dietary Fat Level on Body Composition, Blood Metabolites, Rate of Passage, and Nutrient Assimilation Efficiency in Harbor Seals"  
   01/01/03 - 12/31/03  (New)  $20,406  
   FROM: Alaska Sea Life Center

8. Chen, Yi-Leng  
   Meteorology - SOEST  
   "Application of High Resolution Mesoscale Models to Improve Weather Forecasting in Hawaii"  
   01/01/04 - 12/31/04  (New)  $10,000  
   FROM: Univ Corp for Atmospheric Research

9. Chu, Pao-Shin  
   Meteorology - SOEST  
   "Reestablishment of the Hawaiian Islands' Climate Division in Support of NOAA's Efforts"  
   12/01/03 - 02/28/04  (New)  $3,282  
   FROM: Desert Research Institute
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<td>Criley, Richard A</td>
<td>Tropical Plant &amp; Soil Science</td>
<td>Ornamental Gingers as Flowering Potted Plants</td>
<td>07/01/03 - 06/30/04</td>
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<td>11</td>
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<td>Criley, Richard A</td>
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<td>Year-around Production of Sunflower (Helianthus annuus) as a Cut Flower in Hawaii</td>
<td>07/01/04 - 09/30/05</td>
<td>(New)</td>
<td>$960</td>
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<td>13</td>
<td>Ebeling, Harald</td>
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<td>The Remarkable Arc in Abell 1201 - Probing the Mass Profile of Clusters Down to 10 kPc</td>
<td>11/03/03 - 11/02/04</td>
<td>(New)</td>
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<td>The Mass Distribution in the Most Distant Virialized Galaxy Cluster Known</td>
<td>09/18/03 - 09/17/04</td>
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<td>Cosmological Constraints from the X-Ray Gas Mass Fraction in the Most Luminous, Relaxed Clusters</td>
<td>08/25/03 - 08/24/04</td>
<td>(New)</td>
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<td>16</td>
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<td>Life in the Fast Lane: The Dark-Matter Distribution in the Most Massive Galaxy Clusters in the Universe at Z&gt;0.5</td>
<td>09/01/03 - 08/31/05</td>
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<td>07/17/03 - 06/30/05</td>
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<td>18</td>
<td>Gorham, Peter W</td>
<td>Physics &amp; Astronomy</td>
<td>Cosmic Ray/Atmosphere Zev Interaction</td>
<td>10/03/03 - 09/30/04</td>
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<td>Los Alamos National Laboratories</td>
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<td>The Masses and Luminosities of Population II Stars</td>
<td>10/01/03 - 07/31/04</td>
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<td>Hodapp, Klaus W</td>
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<td>Subcontract with University of California Ernest Orlando Lawrence Berkeley National Laboratory for Use of the UH 2.2-m Telescope on Mauna Kea</td>
<td>01/27/04 - 12/31/05</td>
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<td>Ernest Orlando Lawrence - Berkeley National Lab</td>
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<td>22</td>
<td>Issell, Brian F</td>
<td>Cancer Research Center</td>
<td>CRCH 0306: A Randomized, Prospective Study Comparing Three Regimens of Eloxatin Plus Fluoropyrimidine for Evaluation of Safety and Tolerability in ...</td>
<td>12/30/03 - 06/30/07</td>
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<td>Kaneshiro, Kenneth Y</td>
<td>Pacific Biomed Resrch Cntr</td>
<td>High Throughput Sequencing and the Phylogeny of the Family Drosophilidae</td>
<td>02/01/03 - 01/31/05</td>
<td>(New)</td>
<td>$29,440</td>
<td>American Museum of Natural History</td>
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<td>24</td>
<td>Kinoshita, Charles M</td>
<td>Molecular Biosciences &amp; Bioengineering</td>
<td>HECO IRP-3: Banana Grass Production and Cost Study</td>
<td>09/09/03 - 10/31/03</td>
<td>(New)</td>
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<td>25</td>
<td>Kuhn, Jeffrey R</td>
<td>Institute for Astronomy</td>
<td>The LYOT Project: Optimized, Diffraction-Limited Coronagraphy</td>
<td>09/15/03 - 08/31/04</td>
<td>(New)</td>
<td>$20,440</td>
<td>American Museum of Natural History</td>
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26. Kuhn, Jeffrey R Institute for Astronomy
"MRI: 1.6 Meter Solar Telescope in Big Bear - The NST"
08/15/03 - 07/31/04 (New) $120,000
FROM: New Jersey Inst of Technology (Hitachi Foundation)

27. Li, Jing Institute for Astronomy
"Velocity Structure and Plasma Parameters of Halo CMEs"
08/01/03 - 01/31/04 (New) $20,000
FROM: Harvard-Smithsonian Astrophysical Observatory

28. Li, Qingxiao Molecular Biosciences & Bioengineering
"Polychlorinated Biphenyls and Heavy Metals in Steller Sea Lions"
07/01/03 - 12/31/04 (Continuation) $50,000
FROM: Alaska Sea Life Center

29. Li, Qingxiao Molecular Biosciences & Bioengineering
"Organochlorines in Steller Sea Lions"
10/01/03 - 04/30/05 (New) $70,000
FROM: Alaska Sea Life Center

30. Liu, Michael Institute for Astronomy
"Chandra, Observations of a Protocluster at Z = 1.31"
11/18/03 - 11/17/04 (New) $38,400
FROM: Smithsonian Astrophysical Observatory

31. Liu, Michael Institute for Astronomy
"NICMOS Confirmation of a Young Planetary - Mass Companion"
08/01/03 - 07/31/05 (New) $11,427
FROM: Space Telescope Science Institute

32. Liu, Michael Institute for Astronomy
"NICMOS Confirmation of a Young Planetary - Mass Companion"
04/19/04 - 03/31/06 (Supplement) $34,283
FROM: Space Telescope Science Institute

33. Lucey, Paul Haw Inst Geophys & Planet
"Mars Alteration Hyperspectral Imager"
06/25/03 - 09/28/03 (Supplement) $168,440
FROM: Jet Propulsion Lab

34. Lucey, Paul Haw Inst Geophys & Planet
"Mars Alteration Hyperspectral Imager"
05/03/04 - 12/31/05 (Supplement) $287,213
FROM: Jet Propulsion Lab

35. McMurry, Gary M Oceanography - SOEST
"Collaborative Research: Constraining the Temporal Resolution and
Geochronology of Holocene Sediment Records from the Antarctic
Continental Shelf..."
05/15/03 - 04/30/05 (New) $38,300
FROM: Bermuda Biological Station for Research

36. Merrifield, Mark A JIMAR - SOEST
"In Situ Tide Gauges/GPS Stations for Monitoring the Temporal Drift of
Satellite Altimeters"
08/01/03 - 12/31/03 (Supplement) $34,060
FROM: Jet Propulsion Lab

37. Merrifield, Mark A JIMAR - SOEST
"In Situ Tide Gauges/GPS Stations for Monitoring the Temporal Drift of
Satellite Altimeters"
09/25/03 - 07/30/04 (Supplement) $77,940
FROM: Jet Propulsion Lab

38. Owen, Tobias Institute for Astronomy
"Co-Investigator for the Aerosol Collector and Pyrolyser (ACP)
Investigation During the MO&DA Phase of the Cassini Mission"
12/12/03 - 09/30/04 (Supplement) $10,000
FROM: Jet Propulsion Lab

39. Owen, Tobias Institute for Astronomy
"Interdisciplinary Scientist During the Mission Operation and Data
Analysis (MO&DA) Phase of the Cassini Mission"
12/12/03 - 09/30/04 (Continuation) $30,000
FROM: Jet Propulsion Lab

40. Owen, Tobias Institute for Astronomy
"Interdisciplinary Scientist During the Mission Operations and Data
Analysis (MO&DA) Phase of the Cassini Mission"
02/27/04 - 09/30/04 (Continuation) $30,000
FROM: Jet Propulsion Lab

41. Owen, Tobias Institute for Astronomy
"Co-Investigator for the Aerosol Collector and Pyrolyser (ACP)
Investigation During the MO&DA Phase of the Cassini Mission"
02/27/04 - 09/30/04 (Continuation) $56,500
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<td><em>Mid-Latitude Ocean Circulation Dynamics from Satellite Altimetry and Modeling Analysis</em></td>
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<td><em>An Investigation of the Mesoscale Eddy Field in the North Pacific Current Utilizing Altimetry, Scatterometry, and Numerical Ocean Modeling</em></td>
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<td><em>Exploring X-rays in Protostellar Jets</em></td>
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58. Smith, Jr, John R
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   "Subcontract to WHOI for Seamount Surveys of Deep-Water Coral Distributions as Related to Geological Setting in the Northwestern Hawaiian Islands"
   07/01/03 - 06/30/04 (New) $59,474
   FROM: Woods Hole Oceanographic Inst

59. Stillman, Jonathon
   Zoology
   "Physiological Response of Crabs to Cold Air Exposure"
   02/01/04 - 06/30/04 (New) $12,000
   FROM: Alaska Department of Fish and Game

60. Stockton, Alan N
   Institute for Astronomy
   "Do QSO Extended Emission Regions Result from Cooling Flows?"
   07/01/03 - 07/08/04 (New) $68,830
   FROM: Smithsonian Astrophysical Observatory

61. Stockton, Alan N
   Institute for Astronomy
   "Spectroscopy in the Inner Region of the 3C 48 Host Galaxy"
   10/29/03 - 09/30/05 (Continuation) $31,013
   FROM: Space Telescope Science Institute

62. Taylor, G Jeffrey
   Haw Inst Geophys & Planet
   "Martian Bulk Composition and Crustal Evolution"
   11/21/03 - 02/28/05 (Continuation) $62,900
   FROM: Jet Propulsion Lab

63. Taylor, G Jeffrey
   Haw Inst Geophys & Planet
   "Martian Bulk Composition and Crustal Evolution"
   02/26/04 - 02/28/05 (Continuation) $7,043
   FROM: Jet Propulsion Lab

64. Taylor, G Jeffrey
   Haw Inst Geophys & Planet
   "Martian Bulk Composition and Crustal Evolution"
   05/10/04 - 02/28/05 (Continuation) $29,399
   FROM: Jet Propulsion Lab

65. Tholen, David J
   Institute for Astronomy
   "AMICA Instrument Team Member"
   05/28/04 - 09/30/04 (Continuation) $33,000
   FROM: Jet Propulsion Lab

66. Tully, R Brent
   Institute for Astronomy
   "Optimization of the Tip of the Red Giant Branch Distance Estimator"
   09/01/03 - 08/31/05 (New) $15,000
   FROM: Space Telescope Science Institute

67. Tully, R Brent
   Institute for Astronomy
   "The Local Hubble Flow and the Density Field within 6 Mpc"
   09/01/03 - 08/31/05 (New) $76,823
   FROM: Space Telescope Science Institute

68. Tully, R Brent
   Institute for Astronomy
   "Space Interferometry Mission Key Project: Dynamical Observations of Galaxies"
   08/06/03 - 09/30/05 (Continuation) $29,989
   FROM: Jet Propulsion Lab

69. Tully, R Brent
   Institute for Astronomy
   "Space Interferometry Mission Key Project: Dynamical Observations of Galaxies"
   11/25/03 - 09/30/05 (Continuation) $42,000
   FROM: Jet Propulsion Lab

70. Tully, R Brent
   Institute for Astronomy
   "Space Interferometry Mission Key Project: Dynamical Observations of Galaxies"
   02/09/04 - 09/30/05 (Continuation) $40,000
   FROM: Jet Propulsion Lab

71. Tully, R Brent
   Institute for Astronomy
   "Space Interferometry Mission Key Project: Dynamical Observations of Galaxies"
   03/22/04 - 09/30/05 (Continuation) $44,823
   FROM: Jet Propulsion Lab

72. West, Michael J
   UHH- Physics
   "Intergalactic Globular Clusters"
   01/01/03 - 12/31/05 (New) $28,496
   FROM: Space Telescope Science Institute

73. West, Michael J
   UHH- Physics
   "ACS Virgo Cluster Survey"
   01/01/03 - 12/31/05 (New) $23,509
   FROM: Space Telescope Science Institute

74. Whittow, G Causey
   Physiology- MED
   "Investigation into Dolphin Physiology"
   08/07/03 - 12/30/03 (Continuation) $30,000
   FROM: Dolphin Quest
2003-2004 RESEARCH AWARDS BY SPONSOR

75. Xie, Shang-Ping  Meteorology - SOEST
"An Investigation of Monthly Wind Variability in the Eastern Equatorial Pacific Using the Sea Winds, In-Situ Observations and Numerical Modeling"
01/12/04 - 04/30/04  (Supplement)  $33,120
FROM: Jet Propulsion Lab

U.S. Universities and Colleges

1. Alvarez, Anne M  Coll, Trop Ag & Human Res
"Western Regional Center in the National Network of Plant Diagnostic Laboratories for Plant Disease and Pest Diagnosis and Surveillance"
07/01/02 - 06/30/04  (New)  $77,008
FROM: Univ of California- Davis

2. Arakaki, Richard F  Medicine- MED
"Diabetes Prevention Program in Hawaii"
07/01/02 - 06/30/03  (Supplement)  $48,415
FROM: Univ of Washington

3. Arakaki, Richard F  Medicine- MED
"Diabetes Prevention Program Outcomes Study in Hawaii"
07/01/03 - 01/31/04  (Continuation)  $94,377
FROM: Univ of Washington

"Alliance Coastal Technology - UH SOEST"
05/01/03 - 04/30/04  (New)  $350,000
FROM: Univ of Maryland

5. Atkinson, Marlin J  Haw Inst Marine Bio-SOEST
"Alliance for Coastal Technology - UH Soest Partner"
05/01/04 - 04/30/05  (Renewal)  $265,655
FROM: Univ of Maryland

6. Bowen, Richard L  Natural Resources & Environmental Mgt
"Development of a Sustainable Polyculture System for Exotic Tropical Fruits"
07/01/03 - 06/30/06  (New)  $60,600
FROM: Utah State University

7. Businger, Steven  Meteorology - SOEST
"University of Hawaii Ground Winds"
07/14/03 - 02/28/04  (Supplement)  $96,574
FROM: Univ of New Hampshire

8. Businger, Steven  Meteorology - SOEST
"University of Hawaii Targeted Winds"
07/01/03 - 06/30/04  (New)  $100,000
FROM: Univ of New Hampshire

9. Cervi, Clementina D  Nursing
"Fat Reduction, HRT Use, & Benign Breast Disease (BBD) Risk"
08/01/03 - 07/31/04  (New)  $12,200
FROM: Yeshiva University

10. Cowen, James P  Oceanography - SOEST
09/01/03 - 08/31/04  (New)  $13,948
FROM: State University of New Jersey (Rutgers)

11. DeCarlo, Eric H  Oceanography - SOEST
"Determination of Trace and Rare Earth Elements in Antarctic Lakes by FIA-ICP-MS"
06/01/03 - 07/31/03  (Supplement)  $3,000
FROM: Miami University Ohio, Oxford Ohio

12. Evensen, Carl I  Natural Resources & Environmental Mgt
"Water Quality Research and Extension Coordination in Hawaii"
12/03/03 - 09/30/04  (Supplement)  $40,330
FROM: Univ of Arizona

13. Firing, Eric  JIMAR - SOEST
"Current Measurements on Global Ocean Repeat Hydrography Cruises"
01/01/04 - 12/31/04  (Continuation)  $60,390
FROM: Univ of California- San Diego

14. Franke, Adrian A  Cancer Research Center
"Association of Urinary Phytoestrogen Excretion with Cancer Risk In Female Chinese"
05/01/03 - 05/31/04  (New)  $41,498
FROM: Vanderbilt University

15. Garces, Milton  Haw Inst Geophys & Planet
"Proposed Installation Plan for Infrasound Array IS39, Palau"
07/25/03 - 07/24/04  (New)  $510,570
FROM: Univ of Mississippi

16. Garces, Milton  Haw Inst Geophys & Planet
"Installation of CTBT IMS Array IS52 Diego Garcia"
04/10/03 - 04/09/06  (Supplement)  $118,751
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<td>&quot;Mito AST Predict Liver Function in HIV Alcoholics&quot;</td>
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<td>&quot;Effects of Meditation on CVD in Native Hawaiians: A Pilot Study&quot;</td>
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<td>&quot;Special Considerations in the Interpretation of Thermal Infrared Spectroscopy from Landers and Rovers&quot;</td>
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<td>36</td>
<td>Li, Qingxiao</td>
<td>Molecular Biosciences &amp; Bioengineering</td>
<td>&quot;Polychlorinated Biphenyls in Harbor Seals&quot;</td>
<td>10/01/02 - 09/30/03 (New)</td>
<td>$10,000</td>
<td>Univ of Alaska</td>
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<td>37</td>
<td>Li, Qingxiao</td>
<td>Molecular Biosciences &amp; Bioengineering</td>
<td>&quot;Analysis of Harbor Seal Samples for the Presence of Organochlorine Contaminants&quot;</td>
<td>10/01/03 - 09/30/04 (New)</td>
<td>$25,000</td>
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<td>38</td>
<td>Li, Qingxiao</td>
<td>Molecular Biosciences &amp; Bioengineering</td>
<td>&quot;Pesticide Testing&quot;</td>
<td>02/28/04 - 03/01/05 (Continuation)</td>
<td>$70,000</td>
<td>Univ of California- Davis</td>
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<td>39</td>
<td>Lucey, Paul</td>
<td>Haw Inst Geophys &amp; Planet</td>
<td>&quot;Support for University of Wisconsin MuRl Project&quot;</td>
<td>04/01/03 - 03/31/04 (Continuation)</td>
<td>$88,625</td>
<td>Univ of Wisconsin- Madison</td>
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<td>40</td>
<td>Lucey, Paul</td>
<td>Haw Inst Geophys &amp; Planet</td>
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<td>41</td>
<td>Lucey, Paul</td>
<td>Haw Inst Geophys &amp; Planet</td>
<td>&quot;Support to Georgia Tech Hyperspectral Polarization Program&quot;</td>
<td>04/16/04 - 01/31/05 (Continuation)</td>
<td>$119,960</td>
<td>Georgia Institute of Technology</td>
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<td>42</td>
<td>Martindale, Mark Q</td>
<td>Pacific Biomed Rsrch Cntr</td>
<td>&quot;WarmNet: Reconstructing the Early Evolution of Segmented Annelid Worms&quot;</td>
<td>05/04/03 - 09/30/06 (New)</td>
<td>$212,503</td>
<td>Auburn University</td>
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<td>43</td>
<td>Measures, Christopher</td>
<td>Oceanography - SOEST</td>
<td>&quot;Plankton Dynamics and Carbon Cycling in the Equatorial Pacific Ocean: Control by Fe, Si and Grazing&quot;</td>
<td>12/01/03 - 11/30/07 (New)</td>
<td>$314,597</td>
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<td>Meech, Karen J</td>
<td>Institute for Astronomy</td>
<td>&quot;Deep Impact&quot;</td>
<td>06/16/03 - 02/29/04 (Continuation)</td>
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<td>Institute for Astronomy</td>
<td>&quot;Deep Impact&quot;</td>
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<td>46</td>
<td>Merrifield, Mark A</td>
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<td>&quot;Field Observations in Support of the Pacific Islands Land-Ocean Typhoon Experiment (PILOTE)&quot;</td>
<td>07/01/03 - 06/30/04 (New)</td>
<td>$41,091</td>
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<td>Messing, Russell H</td>
<td>Plant &amp; Environmental Protection Sci</td>
<td>&quot;Importation and Host Range Testing of Parasitoids that Attack the Olive Fly&quot;</td>
<td>01/01/03 - 12/31/04 (New)</td>
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<td>48</td>
<td>Millar, Lynnae K</td>
<td>Medicine- MED</td>
<td>&quot;Periodontal Disease in Diabetic Women with Preterm Birth&quot;</td>
<td>09/30/03 - 08/31/04 (Continuation)</td>
<td>$122,654</td>
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<td>49</td>
<td>Miyasaka, Susan C</td>
<td>Tropical Plant &amp; Soil Science</td>
<td>&quot;Cropping Systems to Control Tropical Soil-Borne Pests in Dryland-grown Taro&quot;</td>
<td>10/01/03 - 06/30/06 (New)</td>
<td>$84,989</td>
<td>Utah State University</td>
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50. Murata, Nathan M Kinesiology & Leisure Sci
"Project Literacy Enriched - Physical Education (LE-PE)"
08/03/03 - 08/30/04 (New) $10,000
FROM: Univ of South Florida

51. Novotny, Rachel Human Nutrition, Food & Animal Sci
"Improving Bone Health in Adolescence Through Targeted Behavioral Intervention"
09/17/03 - 09/30/04 (Supplement) $13,827
FROM: Purdue University

52. Novotny, Rachel Human Nutrition, Food & Animal Sci
"Improving Bone Health in Adolescence Through Targeted Behavioral Intervention"
10/02/03 - 09/30/04 (Supplement) $9,528
FROM: Purdue University

53. O’Riordan, David Cancer Research Center
"Colon Cancer Risk Counseling (FACETS)"
02/01/04 - 12/31/04 (New) $55,124
FROM: Emory University

54. Reipurth, Bo Institute for Astronomy
"The Youngest Stars"
12/02/03 - 02/14/04 (Continuation) $49,384
FROM: Univ of Colorado

55. Schneider, Niklas Oceanography - SOEST
"Analysis of Decadal Variability in the Pacific"
08/01/03 - 07/31/05 (New) $142,561
FROM: Univ of California- San Diego

56. Shikuma, Cecilia M School of Medicine
"Consortium Agreement No. H27339"
12/01/02 - 11/30/03 (Continuation) $42,245
FROM: Univ of Southern California

57. Smith, Craig R Oceanography - SOEST
"Succession and Seep Affinities of Large- Whale, Kelp and Wood Fall Communities on the California Slope"
03/01/03 - 02/29/04 (New) $82,960
FROM: Univ of Alaska

58. Smith, Dean O Pacific Biomed Rech Cntr
"LARIAT"
02/01/04 - 09/29/04 (New) $50,000
FROM: Montana State University

59. Szapudi, Istvan Institute for Astronomy
"ITRF/IM: Statistical Data Mining for Cosmology"
07/18/03 - 06/30/06 (Supplement) $56,322
FROM: Carnegie-Mellon University

60. Szapudi, Istvan Institute for Astronomy
"ITRF/IM: Statistical Data Mining for Cosmology"
04/20/04 - 08/31/06 (Continuation) $58,197
FROM: Carnegie-Mellon University

61. Taylor, G Jeffrey Haw Inst Geophys & Planet
"Interpretation of Mars Odyssey Data for K, Th, and U"
07/15/03 - 07/14/04 (New) $35,866
FROM: Univ of Arizona

62. Thomas, Donald M Haw Inst Geophys & Planet
"Geochemical and Mechanical Analyses of Crystal Vitric Tuffs from ODP Site 1223: Implications for Source and Transport-Deposition Mechanisms"
01/28/02 - 11/22/04 (New) $20,853
FROM: Texas A & M Research Foundation

63. Tius, Marcus A Chemistry
"Parallel Synthesis and Biocatalytic Amplification of Marine-Inspired Libraries: An Integrated Approach Toward Discovering New Chemotherapeutics"
09/01/03 - 08/31/04 (New) $45,453
FROM: Univ of California- Berkeley

64. Tius, Marcus A Chemistry
"Endocannabinoid Active Sites as Therapeutic Targets"
04/01/03 - 03/31/04 (Continuation) $68,531
FROM: Univ of Connecticut

65. Tius, Marcus A Chemistry
"Cannabinergic Ligands and Drugs"
08/01/03 - 07/31/04 (Continuation) $60,000
FROM: Univ of Connecticut

66. Tynny, John Institute for Astronomy
"Probing the Equation of State of the Dark Energy with Supernovae"
11/20/03 - 09/30/04 (Supplement) $40,758
FROM: Univ of Washington
67. Uehara, Goro  
Tropical Plant & Soil Science  
"Carbon from Communities: A Satellite View"  
11/12/03 - 11/06/04  (Supplement)  
FROM: Univ of Georgia  
$7,500

68. Uehara, Goro  
Tropical Plant & Soil Science  
"Carbon from Communities: A Satellite View"  
12/05/03 - 11/06/04  (Continuation)  
FROM: Univ of Georgia  
$4,956

69. Uehara, Goro  
Tropical Plant & Soil Science  
"Carbon from Communities: A Satellite View"  
12/22/03 - 11/06/04  (Supplement)  
FROM: Univ of Georgia  
$61,659

70. Valcour, Victor G  
Geriatrics-MED  
"NARC Acetyl-L-Carnitine for Peripheral Neuropathy"  
08/01/03 - 07/31/04  (New)  
FROM: Washington University- St. Louis, MO  
$13,630

71. Valcour, Victor G  
School of Medicine  
"NARC 008: HIV-related Neuromuscular Weakness Syndrome"  
05/04/04 - 07/31/04  (Supplement)  
FROM: Washington University- St. Louis, MO  
$3,000

72. Wang, Chen-Yen  
Nursing  
"Feasibility and Acceptability of a Culturally Tailored Diabetes Program in Chinese-Americans with Diabetes"  
05/01/03 - 07/31/03  (Continuation)  
FROM: Univ of Washington  
$1,362

73. West, Michael J  
UHH-Physics  
"Long Term Space Astrophysics"  
06/01/02 - 05/31/04  (New)  
FROM: State University of New Jersey (Rutgers)  
$7,451

74. Wong, Daniel  
Counselor Education  
"Rehabilitation Research Institute for Under-Represented Populations (RRIUP)"  
12/01/03 - 11/30/06  (New)  
FROM: Southern University  
$50,000

75. Yamauchi, Lois A  
Educational Psychology  
"CREDE Demonstration School in Wai'anae"  
07/01/03 - 03/31/04  (Supplement)  
FROM: Univ of California- Santa Cruz  
$112,229

76. Yamauchi, Lois A  
Psychology  
"CREDE Demonstration School in Wai'anae"  
06/26/03 - 06/30/03  (Continuation)  
FROM: Univ of California- Santa Cruz  
$7,272

77. Yanagimachi, Ryozi  
Anatomy-MED  
"Germline-Specific Reprogramming in Cloned Mice"  
06/01/03 - 05/31/04  (Continuation)  
FROM: Univ of Texas-San Antonio  
$253,681

78. Yanagimachi, Ryozi  
Anatomy-MED  
"Nucleoproteins in Mammalian Spermatogenesis"  
12/01/03 - 11/30/04  (Continuation)  
FROM: Univ of Texas-Houston  
$14,993

79. Yanagimachi, Ryozi  
Anatomy-MED  
"Germline-Specific Reprogramming in Cloned Mice"  
06/01/04 - 05/31/05  (Continuation)  
FROM: Univ of Texas-San Antonio  
$261,293

80. Yost, Russell S  
Tropical Plant & Soil Science  
"Improving & Sustaining Food & Raw Material Production in West Africa"  
08/27/03 - 09/30/03  (Continuation)  
FROM: Virginia Polytechnic Institute  
$11,000

All Non-U.S.

1. Arakaki, Richard F  
Medicine-MED  
"Ankle-Brachial Index Substudy for CHARISMA"  
10/31/03 - 10/30/06  (Supplement)  
FROM: Sanofi-Synthelabo Recherche  
$5,000

2. Blanchard, Robert J  
Pacific Biomed Ranch Cntr  
"An Evaluation of the Anxiolytic Mechanism and the Temporal Course of Antidepressant Activity of SSR411298 and SSR149415 in Naturalistic Models of..."  
10/01/03 - 12/31/03  (New)  
FROM: Sanofi-Synthelabo Recherche  
$98,136

3. Chang, Sandra P  
Trop Med - Med Micro-MED  
"Pre-Clinical Development of an MSP1.42/QS21 Malaria Vaccine"  
09/15/03 - 09/14/04  (New)  
FROM: World Health Organization- United Nations  
$14,900
"Production Scale-Up and Stability Studies of an MSP1.42 Malaria Vaccine Polypeptide"  
11/17/03 - 11/16/04  (New)  $69,745  
FROM: World Health Organization- United Nations

"Aotus Colony for Testing of an MSP1.42/QS21 Malaria Vaccine"  
11/01/03 - 09/30/04  (New)  $11,826  
FROM: World Health Organization- United Nations

6. Duffy, David  Botany  
"Marina Crow Conservation, Commonwealth of the Northern Mariana Islands: Phase 2"  
01/01/04 - 09/30/05  (Continuation)  $110,892  
FROM: Commonwealth of Northern Mariana Islands

7. Graves, Michael W  Anthropology  
"Archaeological Survey and Inventory of Submerged Resources in Maloelap Lagoon"  
06/18/03 - 09/30/03  (New)  $25,515  
FROM: Republic of the Marshall Islands

8. Hacker, Peter W  Haw Inst Geophys & Planet  
"Establishment of the Integrated Climate Database for Reanalysis and the International Data Network"  
04/01/03 - 03/10/04  (New)  $136,000  
FROM: Japan Marine Science & Technology Center

9. Hadfield, Michael G  Pacific Biomed Rsrch Cntr  
"Korean Biofouling Research Funds"  
01/01/04 - 12/31/04  (New)  $4,686  
FROM: Korean Institute of Chemical Technology

10. Hemscheidt, Thomas K  Chemistry  
"Linking Cyanotoxin Production to Genetic Diversity"  
01/15/04 - 01/14/05  (New)  $3,000  
FROM: Austrian Academy of Sciences

11. Hodapp, Klaus W  Institute for Astronomy  
"NAOJ-Subaru Telescope Use of the UH 2.2 Meter Telescope"  
04/01/03 - 03/31/04  (New)  $180,000  
FROM: Natl Astronomical Observatory of Japan

12. Hodapp, Klaus W  Institute for Astronomy  
"Test of WIRCAM Detector Arrays in KSPEC"  
08/12/03 - 12/31/04  (New)  $30,000  
FROM: Canada-France-Hawaii Telescope Corp

13. Issell, Brian F  Cancer Research Center  
"A Randomized Open-Label Study of Epotin Alfa (PROCRIT) versus Darbepoetin Alfa (ARANESP) to Evaluate Hematologic Response Rate in Anemic Cancer........"  
12/15/03 - 12/14/06  (New)  $39,507  
FROM: Ortho Biotech Products, LP

14. Kim, Albert S  Civil Engineering  
"Predicting Membrane Performance Using Artificial Neural Networks"  
03/01/04 - 12/31/04  (New)  $19,087  
FROM: Saehan Industries, Inc

15. Kinzie, Robert A  Haw Inst Marine Bio-SOSEST  
"Joint Study on the Recognition of Corals"  
04/01/04 - 03/31/05  (Continuation)  $1,500  
FROM: University of the Ryukyus

16. Learned, John G  Physics & Astronomy  
"ASHRA Experiment"  
01/13/04 - 01/12/05  (New)  $30,000  
FROM: Pirede Co., Ltd

17. Li, Qingxiao  Molecular Biosciences & Bioengineering  
"Collaborative Research and Training on Risk Assessment for Exposure of Environmental Endocrine Disruptors"  
03/01/03 - 12/31/05  (New)  $54,000  
FROM: Rural Development Admin-Korea

18. Liu, Robert S H  Chemistry  
"PharmaMar Collaborative Research Agreement"  
11/01/03 - 08/31/04  (Supplement)  $13,352  
FROM: PharmaMar - Spain

19. Liu, Robert S H  Chemistry  
"PharmaMar Collaborative Research Agreement"  
02/20/04 - 08/31/04  (Supplement)  $5,378  
FROM: PharmaMar - Spain
20. Lucey, Paul  
Haw Inst Geophys & Planet  
"Support to BAE Systems"  
03/25/04 - 12/31/04  
(Supplement)  
FROM: BAE Systems  
$300,000

21. McCready, Julian P  
Sch Ocean, Earth Sci & Tec  
"Frontier Research Program for Global Change - JAMSTEC FY 2003 - YR 7"  
04/01/03 - 03/31/04  
(Supplement)  
$3,325,337  
FROM: Japan Marine Science & Technology Center  

22. McCready, Julian P  
Sch Ocean, Earth Sci & Tec  
"JAMSTEC Year 8"  
04/01/04 - 03/31/05  
(New)  
$3,225,577  
FROM: Japan Marine Science & Technology Center  

23. Moreland, Victor  
Water Resource Research  
"Ultraviolet Radiation Technology Investigation"  
02/01/04 - 01/31/05  
(New)  
$63,983  
FROM: Trojan Technologies, Inc  

24. Olsen, Stephen L  
Physics & Astronomy  
"Detector Research and Development for KEK-B Factory"  
06/06/03 - 01/31/04  
(New)  
$98,985  
FROM: Ministry of Education - Sci & Culture of Japan  

25. Olsen, Stephen L  
Physics & Astronomy  
"Detector Research & Development for KEK-B Factory"  
12/17/03 - 01/31/04  
(Supplement)  
$9,733  
FROM: Ministry of Education - Sci & Culture of Japan  

26. Olsen, Stephen L  
Physics & Astronomy  
"Detector Research & Development for KEK-B Factory"  
01/30/04 - 02/20/04  
(Supplement)  
$48,000  
FROM: Ministry of Education - Sci & Culture of Japan  

27. Richmond, Robert  
Pacific Biomed Rsrch Cntr  
"Integrating Coral Reef Ecosystem Integrity and Restoration Options with Watershed-Based Activities to Identify the Classes and Concentrations of ..."  
02/01/04 - 07/31/04  
(New)  
$116,829  
FROM: Univ of Guam  

28. Sheldon, Pauline J  
School, Travel Indus Mgmt  
"Tourism Risk Management in the Asia Pacific Region"  
05/01/03 - 10/31/03  
(New)  
$14,000  
FROM: APEC Int Ctr for Sustainable Tourism  

29. Shultz, Edward J  
Korean Studies - SHAPS  
"Arirang Classroom Education Program"  
12/01/03 - 11/30/04  
(New)  
$45,000  
FROM: Korea Foundation  

30. Steinhoff, Patricia G  
Sociology  
"Japan Directory Project"  
04/01/03 - 03/31/04  
(New)  
$98,819  
FROM: Japan Foundation  

31. Steinhoff, Patricia G  
Sociology  
"Japan Directory Project"  
04/01/04 - 03/31/05  
(Continuation)  
$143,390  
FROM: Japan Foundation  

32. Yamazaki, Yukiko  
Anatomy - MED  
"Genomic Structure and Function of Clustered Cadherin Family"  
04/01/03 - 03/31/04  
(Continuation)  
$23,100  
FROM: Japan Science and Technology Corp  

33. Yang, Ping-Yi  
Molecular Biosciences & Bioengineering  
"Development of a Pilot Plant for Domestic Sewage Treatment and Reuse with Entrapped Mixed Microbial Cell (EMMC) Unit Process"  
07/01/03 - 12/31/03  
(New)  
$42,000  
FROM: Korea Institute of Science and Technology