

**University of Michigan**  
**American Recovery and Reinvestment ACT (ARRA) Funding**  
through August 31, 2010

Unit	No. of Awards	Anticipated Total Funding
Medical School	270	\$83,702,991
College of Engineering	60	\$49,950,948
Institute for Social Research	28	\$48,634,514
School of Public Health	31	\$36,893,034
College of Lit, Science & Arts	57	\$21,617,250
Provost & Exec VP Acad Affairs	1	\$8,775,400
Life Sciences Institute	18	\$5,290,569
School of Dentistry	13	\$4,459,971
Rackham Graduate School	6	\$3,840,333
Business Operations	3	\$3,313,733
College of Pharmacy	6	\$2,484,347
Vice President for Research	1	\$1,904,360
School of Nursing	2	\$1,356,479
School of Information	2	\$1,286,781
Center for Human Growth & Dev	3	\$1,263,158
Dbn Office of Academic Affairs	1	\$733,500
Flint VC Student Svcs	1	\$627,200
VP for Student Affairs	1	\$296,863
Department of Public Safety	2	\$288,528
School of Kinesiology	3	\$250,689
Ross School of Business	1	\$192,587
School of Nat Resource and Env	1	\$168,915
Dbn Col of Arts, Sci & Letters	1	\$128,385
Univ Hospitals& Health Centers	1	\$5,000
<b>Grand Total</b>	<b>513 Awards</b>	<b>\$277,465,535</b>

### Five Largest ARRA Project Awards to the University of Michigan as of August 31,2010

Title	Principal Investigator	School/College/Unit	Duration	Total Anticipated Award
EFRC: Center for Solar and Thermal Energy Conversion in Complex Materials (CSTECCM)	Peter Green	College of Engineering	5 years	\$19,500,000
Low-Pass Sequencing and High-Density SNP Genotyping for Type 2 Diabetes	Michael Boehnke	School of Public Health	2 years	\$17,863,520
U-M Institute for Social Research Expansion	James Jackson	Institute for Social Research	5 years	\$14,824,023
State Fiscal Stabilization Fund for Education	Glenna Schweitzer	Provost & Exec VP Acad Affairs	1 year	\$8,775,400
Health and Retirement Study 2010 Data Collection Supplement	David Weir	Institute for Social Research	2 years	\$8,032,621

Note: Award dollars represent what can reasonably be expected from the sponsor over the life of the project. Future dollars received in support of the project may or may not be considered ARRA funded.

# AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

## Corporation for National and Community Service

**\$296,863**

1 \$296,863 Dewar, Margaret Michigan AmeriCorps Partnership - 2009 Recovery

## Department of Commerce

**\$99,498**

1 \$99,498 Moyne, James Implementation of Institute of Electrical and Electronics Engineers Standards

## Department of Education

**\$10,136,100**

1 \$733,500 Buchanan, Drew ARRA Education Stabilization Fund (IHE) for UM-Dearborn  
2 \$627,200 Glasco, Gerald ARRA Education Stabilization Funds-Flint  
3 \$8,775,400 Schweitzer, Glenna State Fiscal Stabilization Fund for Education

## Department of Energy

**\$28,803,674**

1 \$115,000 Atreya, Arvind The University of Michigan Industrial Assessment Center (IAC) -American Reinvestment and Recovery Act Fund  
2 \$600,000 Daly, Samantha Deformation and Failure Mechanisms of Shape Memory Alloys  
3 \$3,230,000 Ewing, Rodney Energy Frontiers Research Center, Actinide Materials for the 21st Century  
4 \$800,000 Forrest, Stephen Energy Frontier Research Center  
5 \$199,648 Glotzer, Sharon Far-from Equilibrium Materials Synthesis, Theory and Training Center  
6 \$19,500,000 Green, Peter EFRC: Center for Solar and Thermal Energy Conversion in Complex Materials (CSTECCM)  
7 \$413,534 Hiskens, Ian Techniques for Voltage Control and Transient Stability Assessment  
8 \$777,402 Jablonowski, Christiane Introducing Enabling Computational Tools to the Climate Sciences: Multi-Resolution Climate Modeling with Adaptive Cubed-Sphere Grids  
9 \$166,080 Ni, Jun Multi-Stage Diagnostics for Battery Remanufacturing  
10 \$2,500,000 Peng, Huei Transportation Electrification Education Partnership for Green Jobs and Sustainability Mobility  
11 \$275,930 Shaw, John Lightweight Thermal Energy Recovery System  
12 \$166,080 Tilbury, Dawn Real-Virtual Integrated Testing Framework for Battery Assembly Process  
13 \$60,000 Waas, Anthony Wind Turbine Manufacturing Process Monitoring

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### Department of Homeland Security

**\$5,000**

1	\$5,000	Redmer, Sharon	ARRA Emergency Food and Shelter National Board Program
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### Department of Justice

**\$288,528**

1	\$30,000	Noffsinger, Charles	U-M DPS Bar Coding
2	\$258,528	Noffsinger, Charles	University of Michigan Technology & Campus Safety

### National Institutes of Health

**\$192,083,690**

1	\$469,991	Abecasis, Goncalo	Development of a Software Pipeline for Sequence Data for Quality Checking, Alignment and Variant-Calling
2	\$350,000	Abecasis, Goncalo	Comprehensive Sequencing and Analysis of Variation in HNLBI Cohorts
3	\$78,486	Abecasis, Goncalo	Identification of Causal Variants at Novel GWAS Loci Associated with Lipid Triats
4	\$3,990,588	Abecasis, Goncalo	Genetics of Lipid Levels: Draft Sequencing of 1,000 Genomes
5	\$477,709	Abecasis, Goncalo	Quality Control Genotype Calling and Study Design for 1000 Genomes Project (F023571)
6	\$994,788	Aiello, Allison	Candidate Epigenetic Biomarkers for PTSD: Insights From Detroit
7	\$170,492	Altschuler, Richard	Physiological and Behavioral Assessment of Lateral Efferent Function (F018099)
8	\$15,478	Antonucci, Toni	Social Relations, Age & Health
9	\$250,000	Arenberg, Douglas	Validation of a Multi-gene Test for Lung Cancer Risk
10	\$553,202	Arenberg, Douglas	Promotion of Angiogenesis in Lung Cancer by MIF
11	\$22,500	Arvan, Peter	Peptide Hormone Sorting to the Secretory/Storage Granule
12	\$77,422	Arvan, Peter	Thyocyte Protein Transport to the Cell Surface
13	\$45,612	Athey, Brian	Training Program in Bioinformatics
14	\$1,039,836	Axinn, William	Reciprocal Relations Between Population and Environment
15	\$39,795	Bailey, Martha	Family Planning Programs and the Health and Fertility of US Women, 1960-1980
16	\$40,374	Baker, Laurence	SWOG Treatment Grant ACTNOW Program: S0800
17	\$683,499	Baker, Laurence	SWOG Treatment Grant ADOPT Administrative Supplement
18	\$768,703	Baker, Laurence	SWOG Treatment Grant ACTNOW Program: S0816

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

19	\$145,903	Baker Jr, James	DNA-Linked Dendrimer Nanoparticle Systems for Cancer Diagnosis and Treatment
20	\$48,500	Banerjee, Ruma	A Radical Enzyme and Its Escorts
21	\$724,055	Banerjee, Ruma	The Sulfur/Glutamate Circuitry in the Neuroimmune System
22	\$70,000	Barald, Katharine	Signals Regulating SAG Development
23	\$54,466	Barald, Katharine	Molecular Control of Patterning in Early Ear Development
24	\$234,339	Barber, Jennifer	Young Women's Relationships, Contraception, and Unintended Pregnancy - Pregnancy Scares Supplement
25	\$49,944	Barolo, Scott	Structure and Function of a Signal-Regulated Development Enhancer
26	\$692,472	Barsan, William	The Platelet-Oriented Inhibition in New TIA (POINT) Trial
27	\$21,717	Bartlett, Robert	Development of a Total Artificial Lung (F018182)
28	\$644,216	Becker, Jill	Drug Abuse: Sex Differences in Developmental and Environmental Influences
29	\$56,537	Bernal-Mizrachi, Ernesto	AKT/MTOR Signaling and Regulation of Cell Cycle in Beta Cells
30	\$100,333	Birkmeyer, John	Understanding Racial Disparities in Cancer Surgery
31	\$994,586	Bitar, Khalil	Implantation of Physiologically Functional Bioengineered Innervated IAS Constructs
32	\$30,240	Bitar, Khalil	Restoration of Fecal Continence in Aging IAS (F019599)
33	\$154,500	Boehnke, Michael	Identifying Genes for Type 2 Diabetes: FUSION (Administrative Supplement)
34	\$90,599	Boehnke, Michael	Identifying T2D Variants by DNA Sequencing in Multiethnic Samples
35	\$17,863,520	Boehnke, Michael	Low-Pass Sequencing and High-Density SNP Genotyping for Type 2 Diabetes
36	\$124,467	Brosius III, Frank	Recapitulating Transcriptional Pathways of Human Diabetic Nephropathy in Mice (F016292)
37	\$77,001	Burant, Charles	Using Systems Biology to Understand Islet Adaptation and Failure Diabetes
38	\$154,383	Burgard, Sarah	Negative Work Conditions and Health Across the Career
39	\$115,534	Burmeister, Margit	Comprehensive Genomic Approach to Rare Hearing Disorders and Ataxia (F022192)
40	\$974,463	Camper, Sally	Cell Specific Expression in the Pituitary Gland
41	\$458,410	Carlson, Heather	Public / Private Collaboration for High-Quality Protein-Ligand Data - admin supplement
42	\$276,360	Carroll, Kate	Chemistry and Biology of Bacterial Sulfonucleotide Reductases

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

43	\$840,258	Carson, Paul	Supplement to: Combined Digital X-Ray, Optical, and Ultrasound Breast Imaging
44	\$52,500	Cartee, Gregory	Skeletal Muscle Glucose Transport: Exercise and Insulin - Recovery Supplement
45	\$50,500	Cartee, Gregory	Aging, Calorie Restriction and Insulin Signaling Administrative Supplement
46	\$66,500	Carter-Su, Christin	Growth Hormone Receptors and Actions - Admin Supplement
47	\$193,125	Carter-Su, Christin	Growth Hormone Regulation of SH2B1
48	\$115,068	Chang, Amy	Trafficking Pathways to the Cell Surface in Yeast
49	\$183,477	Charpie, John	Trial of Euglycemia in Cardiac Surgery (TECS)
50	\$154,500	Chen, Rong	PKC-Beta Regulation of the Dopamine Transporter Trafficking
51	\$331,199	Christman, Gregory	Cooperative Multicenter Reproductive Medicine Network (U10)
52	\$2,317,500	Chronis, Nikolaos	A Biochip for point-of-care HIV/AIDS Diagnosis in the Developing World
53	\$21,648	Chun, Tae-Hwa	3-Dimensional Proteolytic Regulation of Adipose Tissue Development and Function
54	\$46,835	Clark, Noreen	Preventing Depression in People with Epilepsy: An Extension of Project UPLIFT
55	\$49,814	Clark, Steven	Receptor-Mediated Signaling Regulating Stem Cell Fate
56	\$200,850	Clauw, Daniel	University of Michigan MAPP Research Network Discovery Site
57	\$25,839	Collins, Kathleen	Molecular Mechanisms of HIV Disease Pathogenesis
58	\$651,456	Combi, Michael	Research Experiences for Undergraduate (REU) Undergraduate Research Participation Site at the Space Physics Research Laboratory
59	\$256,406	Cook, Keith	Compliant Thoracic Artificial Lungs
60	\$21,717	Cook, Keith	Compliant Thoracic Artificial Lungs
61	\$225,051	Cooney, Kathleen	Genetic Analysis of Hereditary Prostate Cancer Families-Supplement
62	\$45,766	De Vries, Raymond	A Study of the Factors Influencing Women's Decision About Childbirth
63	\$46,350	DeLancey, John	Birth, Muscle, Injury and Pelvic Floor Dysfunction. Project 3: Mechanisms of Posterior Vaginal Prolapse
64	\$999,229	Delmar, Mario	Stem Cells and the Fibroblast/adipocyte Lineage in Arrhythmogenic Cardiomyopathy
65	\$104,383	Demb, Jonathan	Functional Circuitry of Visual Adaption (F011819)
66	\$54,000	Dimagno, Matthew	Inflammatory Response to Pancreatitis in CF Mice: Sodium & Impaired Apoptosis
67	\$326,934	DiRita, Victor	Gene Regulation by ToxR, TcpP and ToxT in V. Cholerae
68	\$38,112	Djuric, Zora	A Mediterranean Diet in Colon Cancer Prevention (F016717)

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

69	\$695,253	Dressler, Gregory	Cell Signaling in Developing Epithelia
70	\$67,594	Duckett, Colin	Control of Apoptosis and Signaling by XIAP
71	\$190,035	Duncan, Robert	BK Channel Regulation in Auditory Hair Cells
72	\$492,780	Dysko, Robert	Improvements for Decentralized Animal Facilities at the University of Michigan
73	\$728,684	Eaton, Kathryn	Host and Bacterial Factors in Disease Due to H Pylori
74	\$900,235	Eccles, Jacquelynne	Race-based social stress and health trajectories from adolescence to adulthood
75	\$31,180	Eisenberg, Daniel	Mental Health First Aid for College Students: A Multi-campus Randomized Control Trial of a Community Mental Health Intervention
76	\$992,987	Elder, James	Genotyping the NPF Biobank for Psoriasis Susceptibility Genes
77	\$610,370	Elliott, Michael	Hierarchical Bayesian Analysis of Complex Sample Survey Data
78	\$122,858	Elliott, Michael	Marginal Structural Modeling: Towards Recovering Casual Estimates of Neighborhood Poverty and Mortality
79	\$984,303	Engel, James	Reactivation of Fetal Gamma-globin Genes for the Treatment of Beta-globin Disorders
80	\$1,200,483	Engel, James	Leica SPX5 2-Photon Laser-Scanning Confocal Microscope System
81	\$203,863	Engelke, David	Nuclear Organization of RNA Polymerase III Transcription
82	\$52,599	Englesbe, Michael	Towards Pay for Performance in Kidney Transplantation
83	\$78,684	Faulkner, John	Reactive Oxygen Species: Stress and Damage in Old Muscles (09-060 Supp) (F018888)
84	\$518,832	Feldman, Eva	Biomarkers in Diabetic Neuropathy
85	\$752,063	Fenno, J	Surface Protein Complexes of Oral Treponemes
86	\$182,965	Ferguson, David	Roles of Mre11 in Lymphocyte Development and DNA Repair
87	\$19,282	Fetters, Michael	Medical Marvels Interactive Translational Research Experience (MITRE)
88	\$300,172	Fierke, Carol	CRIF: MU Purchase of a Single Crystal X-Ray Diffractometer
89	\$63,839	Fierke, Carol	Zinc Fluorescence Biosensing and Imaging Technology
90	\$70,683	Fingar, Diane	Identity, Regulation and Function of mTOR Phosphorylation Sites
91	\$421,070	Fisher, Gary	Collagenase Degradation in Extracellular Matrix in Aging
92	\$151,750	Flagel, Shelly	Individual Differences in Incentive Salience Attribution: Relevance to Addiction
93	\$681,339	Fowlkes, J	Quantification of Blood Volume Flow Using Ultrasound
94	\$379,214	Fox, David	Training of Arthritis Research Scientists
95	\$1,531,170	Foxman, Betsy	Oral and Vaginal Microbes, Human Genotype, and Preterm Birth

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

96	\$308,407	Franceschi, Renny	MAP Kinase Regulation of Osteoblast Formation
97	\$71,157	Frey, William	US Minority Migration and Metropolitan Change - Admin Supplement
98	\$68,734	Gadegbeku, Crystal	Retinopathy and Chronic Renal Insufficiency (RCRIC) Follow-up Study
99	\$1,078,635	Gafni, Ari	Single Molecule Approach to Neurodegeneration in Alzheimer's Disease
100	\$85,604	Gafni, Ari	ARRA Supplement to Molecular Biophysics Training Grant
101	\$81,600	Gerber, Elisabeth	The Spatial Context of Political Phenomena
102	\$80,215	Geronimus, Arline	Exploring the Import of Health-Related Residential Mobility to Local Area Studies
103	\$743,070	Gestwicki, Jason	CAREER: Understanding the Logic of Chaperone-Assisted Protein Folding in Cells
104	\$153,120	Ghimire, Dirgha	Marital Processes, Husband-Wife Relationships, and Fertility Behaviors
105	\$396,147	Gianchandani, Yogesh	Biliary Stents with Integrated Magnetoelastic Resonant Sensors for Remote Monitoring of Occlusion
106	\$2,780	Gilman, Sid	Genome Wide Association Analysis of Alzheimer's Disease (ARRA Subaward)
107	\$546,488	Gilsdorf, Janet	H. influenza Genes Associated with Acute Otitis Media (combined PAFs)
108	\$265,001	Gingerich, Philip	Transition to Tail-powered Swimming in the First Fully Aquatic Whales of Eocene Tethys (Egypt)
109	\$33,242	Giordano, Thomas	Molecular Characterization of a Human Salivary Gland Tumor Xenograft Bank
110	\$191,972	Gleason, James	Arctic Ocean Redox History and Hg Cycling Using Redox-Sensitive Trace Metals and Hg Isotopes: The Influence of Sea Ice
111	\$985,501	Glover, Thomas	Environmental Risk Factors for Copy Number Variation in Human Chromosomes
112	\$20,694	Gnegy, Margaret	Pharmacology of Dopamine Release by Amphetamine - Summer Research Experience - BG
113	\$780,298	Goldstein, Steven	Faculty Recruitment to Musculoskeletal Research Consortium
114	\$1,197,369	Griggs, Jennifer	Racial/Ethnic and SES Disparities in Quality of Breast Cancer Systemic Therapy
115	\$86,400	Gruis, Kirsten	Pilot Placebo-Controlled Trial of Early Noninvasive Ventilation for ALS (F017208)
116	\$74,365	Gumucio, Deborah	Cell: Cell Interactions During Late Intestinal Development
117	\$45,695	Gumucio, Deborah	Cell: Cell Interactions During Late Intestinal Development (F012066)
118	\$379,710	Gumucio, Deborah	Morphogenesis of the fetal intestinal epithelium

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

119	\$95,655	Hammer, Gary	Mechanisms of Adrenal Differentiation
120	\$243,558	Han, Zhe	A Novel G Protein Signaling pathway controlling drosophila cardiac morphogenesis (F019475)
121	\$309,000	Hao, Shuanglin	Gene Therapy of HIV-Neuropathic Pain With Morphine Tolerance
122	\$100,000	Hasler, William	Visceral Afferent Dysfunction in Diabetic Gastropathy
123	\$169,751	Hawley, Sarah	A Targeted Decision Aid to Improve Minority Participation in Clinical Trials
124	\$418,502	He, Yongqun	Development and Evaluation of a Dual-Antigen Nasal Brucella Vaccine
125	\$5,300,000	Heeringa, Steven	1st Supplement to the Modifiable Risk and Protective Factors for Suicidal Behaviors in the US Army (F023412)
126	\$51,373	Heidebrink, Judith	Alzheimer's Disease Neuroimaging Initiative-Grand Opportunity
127	\$98,658	Heisler, Mary Ellen	Mobilizing Peer Support for Effective Congestive Heart Failure Self-management
128	\$400,000	Herman, William	Supplementary Economic Analyses of the Diabetes Prevention Program (DPP)
129	\$309,000	Herman, William	NOT-OD-09-056 Notice of Availability of Recovery Act Funds for Administrative Supplements
130	\$23,978	Hershenson, Marc	Rhinovirus and Airway Epithelial Cell Responses (F015237)
131	\$60,256	Herzog, Susan	Mechanisms Underlying Mechanical Properties of Muscle-tendon Units (F020569)
132	\$981,458	Hildebrandt, Friedhelm	Sequencing for Disease-Cause Identification, Early Detection and Drug Discovery in Nephrotic Syndrome
133	\$49,251	Hirth, Richard	Selection and the Quality Impact of Nursing Home Ownership
134	\$99,945	Hodish, Israel	A Novel Tool to Understand Insulin Production and Failure in Pancreatic Beta-cells
135	\$379,397	Holoshitz, Joseph	MHC class II-Associated Endothelial Dysfunction
136	\$69,512	Hoogerwerf, Willemijntje	Role of Clock Genes in Colonic Motility
137	\$185,768	Huesmann, L	Effects on Children of Persistent Exposure to Extreme Political Violence
138	\$412,013	Huffnagle, Gary	Mucosal Mechanisms Linking Pulmonary and Gastrointestinal Inflammation/Immunity
139	\$81,673	Hunt, Alan	Microtubule Mechanics at the Nanoscale (ARRA supplement)
140	\$373,309	Huynh, Mae	Host Determinants of Toxoplasma and Listeria Invasion
141	\$424,875	Ilgen, Mark	Developing an Intervention to Address Suicide Risk During Substance Use Disorder Treatment

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

142	\$19,056	Imperiale, Michael	Parameters Governing Kidney Cell Infection with BKV
143	\$695,250	Imperiale, Michael	Encapsidation of Adenovirus DNA
144	\$439,355	Iniguez-Lluhi, Jorge	Glucocorticoid Receptor Function in Steroid Resistant Childhood Nephrotic Syndrome
145	\$14,824,023	Jackson, James	University of Michigan Institute for Social Research Expansion
146	\$75,334	Jackson, James	Michigan Center for African American Aging Research AASIST Supplement
147	\$1,027,334	Jagadish, Hosagrahar	Literature and Data Driven Hypothesis Generation for High Throughput Experiments
148	\$150,457	Johnson, Kent	Identification and Validation of Biomarkers for Vasculitis
149	\$50,000	Kahana, Alon	A zebrafish model for studying orbital development and disease
150	\$174,056	Kalbfleisch, John	Biostatistics Training for Research in the Biosciences
151	\$54,000	Kao, John	Adaptive Immune Mechanism in Acute H. Pylori Infection
152	\$51,499	Kapila, Yvonne	Fibronectin Regulation of Carcinoma Apoptosis
153	\$998,684	Kardia, Sharon	Epigenetics Predictors of Common Chronic Diseases
154	\$899,991	Kardia, Sharon	Informed Consent and Data Access Issues in State-based Biobanks
155	\$121,306	Kardia, Sharon	Genetics of Microangiopathic Brain Injury
156	\$108,000	Katz, Steven	Quality of Cancer Care Evaluation and Interventions.
157	\$271,091	Kaufman, Randal	Role of the Unfolded Protein Response in Beta Cells
158	\$359,897	Keller, Evan	In vivo Non-invasive 3D Quantitative Molecular Imaging System
159	\$49,919	Keller, Evan	RKIP Regulation as a Potential for Tumor Suppression
160	\$100,221	Kennedy, Robert	Design and Use of Methods for Peptide Secretion Studies
161	\$115,873	Kerppola, Tom	Optimization of Biomolecular Fluorescence Complementation Probes for New Imaging Functions
162	\$54,725	Kim, Scott	The Blurring of Treatment and Research in Clinical Trials: Two Problems
163	\$418,766	King, William	Vestibular Reflexes in Guinea Pigs
164	\$997,605	Kipke, Daryl	Smart micro-thread arrays for long-term and high fidelity neural interfaces
165	\$38,698	Kipke, Daryl	Center for Neural Communication Technology
166	\$140,982	Koeppe, Robert	Amyloid Imaging, VMCI and Analysis for ADNI
167	\$380,800	Kohn, David	MicroCT 100
168	\$335,604	Kopelman, Raoul	Nanobiophotonics Enabled Tumor Surgery and Intraoperative PDT
169	\$113,454	Kopelman, Raoul	Nanoparticle Enabled Intraoperative Imaging and Therapy
170	\$414,435	Kopelman, Raoul	Ultra Rapid Monitoring of Bacterial Nano-Growth and Antibiotic Susceptibility
171	\$83,878	Kopelman, Raoul	NanoSPINS for In Vivo EPR-Based Spectroscopy and Imaging

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

172	\$58,060	Kotov, Nicholas	Cardiovascular Inflammation Function Imaging by Photoacoustics Using Gold Nanorod
173	\$7,107	Krebsbach, Paul	Engineering Multi-tissue Interfaces (F021470)
174	\$105,792	Kretzler, Matthias	Molecular Predictors of Progressive Renal Failure in the Chronic Renal Insufficiency Cohort
175	\$93,142	Kretzler, Matthias	Identification of Biomarkers for Progressive Diabetic Nephropathy
176	\$101,786	Kumar, Anuj	Large Scale Synthetic Genetic Analysis in <i>C. Albicans</i>
177	\$86,192	Larkin, Lisa	Engineering Innervated Muscle-Tendon Constructs for Tissue Regeneration (F017314)
178	\$487,829	Lawrence, Theodore	Gemcitabine-radiation for Advanced Pancreatic Cancer
179	\$139,473	Lawrence, Theodore	Gemcitabine-Radiation for Advanced Pancreatic Cancer
180	\$990,163	LeClere, Felicia	Exploring New Methods for Protecting and Distributing Confidential Research Data
181	\$763,360	Leonard, Susan	Multi-Generation Family and Life History Panel Dataset
182	\$14,248	Li, Jun	HudsonAlpha Cancer Genome Characterization Center
183	\$718,108	Lieberman, Andrew	Unraveling Mechanisms of Niemann-Pick C Neuropathology with Mouse Models
184	\$32,000	Lin, Jiandie	PGC-1 Beta in the Regulation of Hepatic Lipid Metabolism
185	\$998,813	LiPuma, John	The Lung Microbiota in Cystic Fibrosis
186	\$409,386	Liu, Yan	Molecular Pathological Mechanism and Potential Therapeutics of Lafora Disease
187	\$304,163	Liu, Yang	FoxP3 as the X-Linked Breast Cancer Suppressor Gene
188	\$783,931	Lopatin, Dennis	Immunodominant Stress Proteins of <i>Porphyromonas gingivalis</i>
189	\$413,430	Lopez, Juan	Maternal Behavior and Effects of Paternal Affiliation in 5-HT1a Overexpressing Mice
190	\$996,692	Lord, Catherine	The Development of a Brief Screener for Research Diagnoses of Autism Spectrum Disorders
191	\$175,000	Lord, Catherine	Effectiveness of Early Intervention in an Underserved Population
192	\$1,282,149	Lord, Catherine	1/2 Development of a Screening Interview for Research Studies of ASD
193	\$294,412	Lord, Catherine	Improving and Streamlining Screening and Diagnosis of ASD at 18-24 Months of Age
194	\$92,080	Lord, Catherine	Treatment as usual and peer engagement in Adolescents with High Functioning Autism

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

195	\$196,041	Low, Malcolm	Neurochemistry/Physiology of Proopiomelanocortin Neurons - Admin Supplement
196	\$63,464	Lozoff, Betsy	Notice of Availability of Recovery Act Funds for Administrative Supplements: Brain and Behavior in Early Iron Deficiency
197	\$17,922	Lukacs, Nicholas	TLR and Notch Ligand in RSV-Induced Disease
198	\$66,435	Lukacs, Nicholas	The Role of CC Chemokines in eosinophil airway inflammation (F019355)
199	\$939,608	Luker, Gary	Olympus FV1000-MPE Confocal & Multi-photon Imaging System with IR Wavelength SIM Option
200	\$38,058	Lumeng, Carey	Adipose Tissue Macrophage Polarization and Its Influence on Adipocyte Function
201	\$997,523	Lumeng, Julie	
202	\$75,422	Ma, Peter	Periodontal Engineering Using Biomimetic Nano Scaffolds
203	\$92,377	MacDougald, Ormond	Regulation of Adipocyte Differentiation and Metabolism - Admin Supplement
204	\$38,217	MacDougald, Ormond	Regulation of Adipocyte Differentiation and Metabolism (F016004)
205	\$114,513	MacDougald, Ormond	Interdisciplinary Study of Marrow Adiposity, Mineral Metabolism, and Energy Balance
206	\$150,417	Magee, John	Biliary Atresia Consortium: Data Coordinating Center
207	\$42,782	Magee, John	Colorado Clinical and Translational Science Institute (UL1)
208	\$399,611	Magee, John	Childhood Liver Disease Research and Education Network Data Coordinating Center
209	\$46,400	Mapp, Anna	Probing Transcriptional Activation at the Molecular Level- R01GM065330 supplement
210	\$701,878	Margolis, Benjamin	Novel Cilia Trafficking Mechanisms
211	\$264,156	Martin, Donna	Developmental Mechanisms of the Chromodomain Gene Chd7 Supplement (Personnel & Equipment)
212	\$7,915,507	Martinez, Fernando	Molecular phenotypes of rapidly progressive idiopathic pulmonary fibrosis
213	\$19,054	Martinez, Fernando	Lung Genomics Research Consortium
214	\$30,000	Matzger, Adam	Polymer-Based Approaches for Exploring Polymorph Space
215	\$63,700	McCauley, Laurie	Integral Role of Hematopoietic Cells in PTH Action in Bone
216	\$348,398	McNally, James	Creating a Biomarker Registry for Secondary Data Collections
217	\$989,593	Meisler, Miriam	Stem Cell Derived Neurons and Inherited Epilepsy
218	\$256,994	Meisler, Miriam	Gene Interaction in Development and Disease (F020483)
219	\$153,456	Menon, K M Jairam	Regulation of Ovarian Function by Gonadotropin
220	\$58,688	Menon, Ram	Fetal/Postnatal Regulation of Expression of the GH Receptor

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

221	\$73,718	Merchant, Juanita	Mechanisms of Gastrointestinal Growth & Transformation (F012377)
222	\$250,901	Merchant, Juanita	Cellular Decisions of Differentiation in the GI Tract
223	\$368,861	Merchant, Juanita	Mechanisms of Gastrointestinal Growth and Transformation
224	\$419,168	Merion, Robert	Living Donor Liver Transplant Data Coordinating Center
225	\$272,133	Merion, Robert	Clinical Outcomes of Live Organ Donors Data Coordinating Center
226	\$998,992	Michailidis, George	Integromics with Application to Prostate Cancer Progression
227	\$174,449	Michele, Daniel	Cardiomyopathy in Muscular Dystrophies - Admin Supplement (F015399)
228	\$424,876	Miller, Alison	Locally-tailored Prevention Programming for Children of Incarcerated Mothers
229	\$297,519	Miller, Josef	Micronutrient Intervention to Reduce Noise Induced Hearing Loss
230	\$124,759	Miller, Richard	New Demographic Endpoints for Comparative Gerontology (Shock Center Supplement)
231	\$67,527	Mobley, Harry	Molecular Pathogenesis of E. Coli UTI
232	\$22,465	Mody, Rajen	Children's Oncology Group Phase I/Pilot Consortium - 2009-2010 - Subcontract 19246
233	\$25,371	Mody, Rajen	A Phase I Study of IMC-A12 (Anti-Insulin-Like Growth Factor-I Receptor Monoclonal Antibody) in Combination with CCI-779 (Temsirrolimus) in Pediatric Patients with Recurrent or Refractory Solid Tumors
234	\$238,719	Montgomery, John	New Cyclization Methods and Multicomponent Couplings
235	\$1,324,730	Montgomery, John	Purchase of a 700MHz NMR Spectrometer for Liquid Applications
236	\$744,060	Morrison, Sean	Human Embryonic Stem Cell-Derived Neural Crest Stem Cells and Hirschsprung Disease
237	\$80,700	Mosberg, Henry	Conformation Selectivity Relations of Opioid Peptides
238	\$126,690	Muller, Martijn	White Matter Lesions and Cortical Serotonergic Deafferentation in Older Adults
239	\$183,585	Myers, Martin	Molecular Mechanisms of Leptin Receptor/Jak2 Action (R37 DK056731)
240	\$234,405	Myers, Martin	Role of the Lateral Hypothalamic Area in Leptin Action
241	\$373,890	Northouse, Laurel	Tailored Web-Based Intervention for Cancer Patients and Family Caregivers
242	\$416,966	O'Brien, Louise	Sleep and Neurobehavioral Performance After Cleft Palate Repair
243	\$424,832	O'Brien, Louise	The Impact of Sleep-Disordered Breathing on Adverse Pregnancy Outcomes
244	\$92,428	O'Riordan, Mary	Chloride Transport Facilitates Listeria Monocytogenes Vacuole Escape
245	\$275,731	Ojo, Akinlolu	Chronic Renal Insufficiency Cohort Study (F020997)

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

246	\$100,000	Omary, Bishr	Pathogenesis of Keratin-containing Inclusions in Liver Disease - Admin Supplement
247	\$85,680	Ono, Akira	Mechanisms that Determine the Subcellular Sites of HIV-1 Assembly
248	\$289,456	Osawa, Yoichi	Drug-Mediated Alteration of Cytochrome P450-Supplement
249	\$300,000	Owyang, Chung	Gastrointestinal Hormone Research Core Center
250	\$999,999	Paczesny, Sophie	Graft Versus Host Disease Biomarkers: Prediction of Onset and Response to Therapy
251	\$998,345	Padmanabhan, Vasantha	Endocrine Disruptors and Fetal Development
252	\$8,961	Padmanabhan, Vasantha	Bisphenol A and Reproductive Dysfunction - ARRA Administrative Supplements Providing Summer Research Experiences for Students and Science Educators
253	\$20,022	Pandey, Aditya	Familial Intracranial Aneurysm Study
254	\$424,875	Papagerakis, Petros	Developmental Dynamics of Enamel Formation
255	\$123,291	Parent, Jack	The Epilepsy Phenome/Genome Project (EPGP)
256	\$771,736	Parker, Edith	Risk Communication for Environmental Exposure
257	\$159,360	Pecoraro, Vincent	Michigan Chemistry - Biology Interface Training Grant (F022959)
258	\$605,088	Pelletier, Shawn	Extracorporeal Support for Emergent (Uncontrolled) Donation Following Cardiac Death
259	\$75,002	Pennathur, Subramaniam	Mass Spectrometry-Based Platform for Oxidative Biomarker in Type 1
260	\$306,954	Pennell, Beth-Ellen	Displaced New Orleans Residents - Administrative Supplement (ARRA) (F022573)
261	\$213,188	Petty, Howard	Novel Immunofluorescence Methods for Retinal Research
262	\$125,130	Pfingst, Bryan	Acoustic and Electrical Hearing After Atoh1 Treatment
263	\$50,440	Pienta, Kenneth	Sentinel Network for Community Based Participatory Research
264	\$317,307	Pienta, Kenneth	Health Disparities Summer Immersion Program
265	\$163,548	Pienta, Kenneth	Supplement to Prostate SPORE Providing Summer Research Experiences for Students (F021058)
266	\$7,500	Pienta, Kenneth	Duke CTSI
267	\$1,393,524	Pinsky, David	Human Molecular Genetics of Vascular Disease
268	\$237,599	Pinsky, David	Eicosanoid Balance in Lung Transplant Injury and Repair (F016069)
269	\$11,046	Prosser, Lisa	Improving Primary Care to Prevent Childhood Obesity (Administrative Supplement F023455)
270	\$203,732	Putnam, Andrew	Regulation and Enhancement of Angiogenesis in Dense Fibrin Matrices (Supplement to R01)

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

271	\$337,690	Quan, Taihao	CYR61-a novel potential mediator of photoaged human skin
272	\$389,120	Raghavan, Malini	Calreticulin's Functions in the Adaptive Immune Response
273	\$22,866	Raghavan, Malini	Interactions and Mechanisms of Function of the TAP Complex
274	\$22,866	Raghavan, Malini	Calreticulin's Functions in the Adaptive Immune Response
275	\$813,566	Raghunathan, Trivellore	Statistical Infrastructure for Combining Information from Multiple Data Sources
276	\$759,697	Raymond, Pamela	New Neurons in the Retina
277	\$217,803	Reddy, Raju	Nitrated Fatty Acids, Novel Anti-Inflammatory Mediators in Allergic Airway Disease
278	\$74,832	Reed, Barbara	Characterization of Pain Processing in Vulvodynia
279	\$165,315	Richards, Julia	Admixture Mapping of Glaucoma Genes in African Americans
280	\$53,309	Roberts, William	Histotripsy for Benign Prostatic Hyperplasia (Supplement)
281	\$438,412	Rogers, Mary	Blood Transfusions: Gender Differences in Utilization, Predictors, and Outcomes
282	\$321,124	Rosenberg, Noah	Population Genetic Studies for Association Mapping (F017333)
283	\$1,075,349	Ross, Brian	Image Biomarker Development for Treatment Efficacy of Prostate Cancer to the Bone
284	\$281,370	Ross, Theodora	Huntington Interacting Protein-1 (HIP1) and the Promotion of Neoplasia.
285	\$222,519	Rudenko, Gabrielle	Compound Screening
286	\$312,976	Rudenko, Gabrielle	Neurexins: Synaptic Building Blocks (F015103)
287	\$7,314	Rudenko, Gabrielle	Elucidating the Molecular Characteristics of 'Delta'FosB as a Transcriptional Activator
288	\$254,500	Rui, Liangyou	SH2-B Regulation of Body Weight and Energy Admin Supplement
289	\$91,875	Sabel, Michael	Multicenter Selective Lymphadenectomy Trial II (MSLT-II) - F015984
290	\$422,550	Sajjan, Umadevi	Co-infections of Rhinovirus and Bacteria in Chronic Lung Disorders
291	\$68,796	Saltiel, Alan	Request for Recovery Act Administrative Supplement
292	\$982,589	Sampselle, Carolyn	Enhancing Community/Academic Clinical Research Collaboration
293	\$38,217	Samuelson, Linda	Mechanisms of Gastric Mucosal Transformation in Hip1r-Deficient Mice (09-060 Supp)
294	\$119,603	Sandberg, David	Quality of Life in Intersexuality: A Pediatric Clinical and Research Tool
295	\$760,358	Sandkvist, Maria	Organization and Function of a Type II Secretion Complex
296	\$759,922	Sandkvist, Maria	Targeting of Type II Secretion, a Common Virulence Pathway
297	\$130,321	Sanford, Melanie	C-H Bond Functionalization in Organic Synthesis
298	\$119,918	Sastry, Narayan	Socioeconomic Disparities in Young Adult Health - Subcontract

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

299	\$52,815	Satin, Leslie	Metabolically Coupled Ion Channel Interactions in Islets - Administrative Supplement
300	\$120,236	Satin, Leslie	Altered Excitatory Neurotransmission After Brain Trauma-Administrative Supplement
301	\$59,833	Schacht, Jochen	Stress Pathways in Age-related Hearing Loss
302	\$288,217	Schacht, Jochen	NIH-NIDCD Research Core Centers (P30) (F017742)
303	\$563,242	Schulz, Amy	Community Approaches to Cardiovascular Health: Pathways to Heart Health
304	\$45,600	Schwartz, Jessica	Growth Hormone Signaling to the Nucleus - Admin Supplement
305	\$52,097	Schwartz, Jessica	Growth Hormone Signaling to the Nucleus (F015153)
306	\$415,561	Schwendeman, Steven	Self-microencapsulation in Polymer Delivery Systems Without Organic Solvents
307	\$296,563	Schwendeman, Steven	Protein Stability in Polymer Delivery Systems
308	\$147,689	Seidler, Rachael	Skill Acquisition in Older Adults
309	\$22,866	Sekiguchi, Joann	Roles of the Artemis Nuclease in DNA Repair and Disease
310	\$482,660	Shahinian, Vahakn	Optimizing Use of Androgen Deprivation Therapy for Prostate Cancer
311	\$1,800	Shanley, Thomas	Pediatric Sepsis Biomarker Risk Model (PERSEVERE)
312	\$218,355	Sherman, David	Tetrahydroisoquinoline Antitumor Drugs: Synthesis and Biosynthesis
313	\$97,458	Shore, Susan	Function of Trigeminal Pathways to the Cochlear Nucleus
314	\$67,597	Sing, Charles	Gene-Environment Interactions in Human Parturition
315	\$280,229	Sing, Charles	Building on GWAS for NHLBI-diseases: the CHARGE consortium
316	\$313,873	Sing, Charles	Genomic Approaches to Common Chronic Disease
317	\$126,125	Smith, Dylan	Measuring Health-Related Quality of Life in Older Adults with Chronic Illness
318	\$996,672	Smith, Jacqui	Experienced-based & Subjective Well-being Survey Toolkits for Older Adults
319	\$334,014	Smith, Janet	#5: Crystal structures of alpha- and flavivirus replication proteins & complexes
320	\$54,540	Smith, Janet	Structural Biology of Complex Enzymes
321	\$229,035	Smith, William	Catalysis by Prostaglandin Endoperoxide H Synthases
322	\$307,094	Smock, Pamela	Integrating U.S. Fertility Surveys - ARRA Admin Supplement
323	\$76,014	Spindler, Katherine	Cloning A Major Gene For Mouse Adenovirus Susceptibility (F014591)
324	\$94,400	Spino, Catherine	Female Pelvic Floor Disorder-Data Coordinating Center (F016072)
325	\$2,400,000	Spino, Catherine	Female Pelvic Floor Disorders - Data Coordinating Center (F016072)
326	\$71,491	Stuenkel, Edward	Mechanisms of Rab27 Regulation of Insulin Secretion - Admin Supplement
327	\$24,182	Stuenkel, Edward	Mechanisms of Rab27 Regulation of Insulin Secretion (F022259)
328	\$966,490	Sun, Yan	Genetics of Hypertension Risk Factors and Sequela in African Americans

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

329	\$596,014	Sun, Yi	SAG E3 Ubiquitin Ligase in Angiogenesis and Carcinogenesis
330	\$399,440	Swain, James	Childhood Poverty and Brain Development: The Role of Chronic Stress and Parenting
331	\$411,464	Swanson, Joel	Mechanisms and Regulation of Macropinosome Closure
332	\$21,630	Swanson, Joel	Coordination of Signaling During Phagocytosis (F012502)
333	\$374,137	Swanson, Michele	Autophagy as a component of the innate immune response
334	\$15,759	Swanson, Michele	Analysis of L. Pneumophilia Virulence Regulation (F014823)
335	\$971,456	Taichman, Russell	The Use of Erythropoietin to Reprogram Oral and Craniofacial Stem Cells
336	\$22,248	Takayama, Shuichi	NHLBI Summer Supplement - Microfluidic Tissue Engineering of Small Airway Injuries (F014887)
337	\$424,841	Tapia, Jose	Mortality & Macroeconomic Conditions: Differential Vulnerability & Mechanisms
338	\$8,961	Taylor, George	Two-Way Interrelationships: Periodontal Disease, Diabetes and Its Complications
339	\$424,875	Taylor, Stephan	GABA Modulation and Negative Affect in Psychosis
340	\$94,747	Tesmer, John	Co-Chaperone Role of Phosducin-like Protein in G Protein Subunit Assembly
341	\$424,875	Thompson, Robert	MicroRNA Expression Patterns in Human Psychiatric CNS Samples
342	\$133,753	Triebel, Raymond	Structure and Function of SET Domain Methyltransferases
343	\$409,000	Tsai, Billy	Transport of Polyomavirus Across the ER Membrane
344	\$234,602	Upchurch Jr, Gilbert	Gender Differences in Experimental Aortic Aneurysms (F018028)
345	\$373,893	Varani, James	Dietary Marine Algae Extract and Colon Cancer Chemoprevention
346	\$53,900	Verhey, Kristen	Single molecule imaging of kinesin motors in live cells
347	\$4,290	Volling, Brenda	Family Transitions Following the Birth of a Sibling
348	\$4,290	Volling, Brenda	Family Transitions and Toddler Development: A Within-Family Perspective
349	\$64,933	Walter, Nils	Admin Supplement for Mechanisms to Rearranging RNA During Pre-mRNA Splicing
350	\$269,265	Warner, Kenneth	University of Michigan Public Health Traineeships Program (ARRA) (F023153)
351	\$622,948	Waskell, Lucy	Participation in Cytochrome b5 in Anesthetic Metabolism
352	\$85,238	Weinberg, Joel	Cellular Pathophysiology of Acute Renal Failure
353	\$1,100,000	Weir, David	National Trends in Brain Health: a Follow-Up Study of CIND and Dementia in the US

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

354	\$6,741,000	Weir, David	Creating a National Resource for Genetic Research in Behavioral and Health Sciences
355	\$3,342,419	Weir, David	HRS Minority Sample Expansion Competitive Revision
356	\$8,032,621	Weir, David	Health and Retirement Study 2010 Data Collection Supplement
357	\$288,521	Weisman, Lois	Inositol Lipid Regulation of Membrane Fusion and Fission
358	\$88,771	Weisman, Lois	Regulation of Myosin V Interaction with Cargo
359	\$997,628	Weiss, Stephen	Nuclear Organization Dynamics Regulate 3-dimensional Vasculogenesis
360	\$53,200	Weitzel III, William	Novel Methods for Hemodialysis Access Evaluation
361	\$1,000,000	Weitzel III, William	VF Doppler Smart Sensor for Dialysis and Vascular Applications
362	\$124,583	Weitzel III, William	Real-time Arterial Elasticity Imaging
363	\$80,340	Wellik, Deneen	Molecular Genetics of Hox Genes and Kidney Development
364	\$745,250	Wellik, Deneen	Hox Genes in Limb Patterning
365	\$202,171	Wellman, Henry	Notice of Availability of Recovery Act Funds for Administrative Supplements: The Child's Theory of Mind
366	\$21,717	Westfall, Margaret	Influence of Troponin I Phosphorylation by PKC on Contractile Function (F0174924)
367	\$49,023	Wicha, Max	Administrative Supplement for ADOPTION of New Technologies for Remote Data Capture & Protocol Authoring
368	\$1,363,286	Wicha, Max	Admin Supplement for Recruitment of New Faculty - Hematologic Malignancies
369	\$218,652	Wicha, Max	Epigenetic changes and their impacts on breast cancer progression and initial susceptibility
370	\$116,078	Wicha, Max	Correlative Studies for a Phase I Dose-escalation Study of the Sonic Hedgehog Smoothed Antagonist GDC-0449 (NSC #747691) Plus Pan-notch Inhibitor RO4929097 (NSC #749225) Administered with Patients with Breast Cancer
371	\$54,000	Wiggins, Roger	Regulation of Podocyte Actin Cytoskeleton
372	\$70,379	Wiggins, Roger	Podocyte Stress, Hypertrophy, and Depletion
373	\$309,000	Wiggins, Roger	The University of Michigan George M. O'Brien Renal Core Center (F021069)
374	\$100,000	Wiley, John	Autoimmune Mechanisms in Diabetic Neuropathy
375	\$83,315	Williams, John	Calcium and Pancreatic Stimulus-Secretion Coupling - Admin Supplement
376	\$38,213	Williams, John	Systems and Integrative Biology Training Grant
377	\$38,217	Williams, John	Dietary Regulation of Pancreatic Digestive Enzymes (F021894)

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Institutes of Health (continued)

378	\$11,433	Wobus, Christiane	Mechanisms of norovirus entry
379	\$11,773	Wood, Jr., David	Effectiveness of Early Stage Prostate Cancer Treatment
380	\$19,535	Wood Jr, David	Effectiveness of Robotic Compared to Standard Prostatectomy for Prostate Cancer
381	\$614,396	Xu, Liang	Tumor-targeted Silencing of Bcl-2/Bcl-xL by the Self-assembled siRNA-nanovectors
382	\$630,434	Xu, Liang	Molecular Cancer Radiosensitization by Targeting Mcl-1
383	\$216,816	Xu, X Z Shawn	A Novel Neuroimaging Approach to Mapping the Neural Circuits Underlying Behavior
384	\$231,750	Yamashita, Junro	Bc12 Regulates Osteoclast Survival
385	\$259,984	Yamashita, Yukiko	Physiological Regulation and Function of Asymmetric Stem Cell Division
386	\$769,776	Yang, Victor	MION for Synchronized MRI and Drug Therapy of Brain Tumor
387	\$8,198	Young, Vincent	Microbial Ecology of Helicobacter-Induced Colitis (F018587)
388	\$139,092	Zhang, Jianzhi	Functional genomic approaches to duplicate gene evolution Supplement
389	\$998,474	Zheng, Pan	CD24 Polymorphism and Acetaminophen Toxicity
390	\$98,022	Zick, Suzie	Ginger for Chemoprevention of Colorectal Cancer
391	\$926,262	Zimmerman, Marc	Virtual Network Influences on Young Adults' Alcohol and Drug Use
392	\$100,000	Zimmermann, Ellen	Detection of Inflammation Versus Intestinal in Crohn's Disease
393	\$660,313	Zochowska, Anuska	The Blood Brain Barrier in Neuroinflammation
394	\$641,176	Zou, Weiping	Regulatory T Cells and Tumor Bone Marrow Metastasis
395	\$167,247	Zuiderweg, Erik	Study of Allosteric Proteins by Nuclear Magnetic Resonance (NMR)
396	\$184,078	Zuiderweg, Erik	Study Of Allosteric Proteins By Nuclear Magnetic Resonance

### National Aeronautics and Space Administration

**\$19,360**

1	\$19,360	Phillips, Jamie	Passively-Cooled Hyperspectral Infrared Detectors And Arrays
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### National Science Foundation

**\$32,096,614**

1	\$379,620	Askew, Kelly	Transformations in Property Rights and Poverty om Rural Tanzania: An Institutional Perspective
2	\$99,556	Atchade, Yves	Adaptive Markov Chain Monte Carlo Methods
3	\$430,000	Awtar, Shorya	CAREER: Elastic Averaging-Nature's Design Paradigm for High Performance Flexure Systems

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Science Foundation (continued)

4	\$400,000	Barald, Katharine	Role of the Cytokin Macrophage Migration Inhibitory Factor (MIF) as a Neurotrophin in Zebrafish Neurogenesis
5	\$304,867	Baumiller, Tomasz	University of Michigan Museum of Paleontology Invertebrate Fossils: Databasing and Web-Accessibility
6	\$1,199,997	Baveja, Satinder	RI:Medium:Building Flexible, Robust, and Autonomous Agents
7	\$282,175	Bayraktar, Erhan	AMC-SS: Problems in Mathematical Finance
8	\$1,993,000	Blaauw, David	CSR:Large:Collaborative Research: Reclaiming Moore's Law Through Ultra Energy Efficient Computing
9	\$231,429	Carroll, Mary Anne	Collaborative Research: PROPHET 2009 - Community Atmosphere-Biosphere INTERactions EXperiment (CABINEX)
10	\$630,602	Carroll, Mary Anne	REU Site at the University of Michigan Biological Station: Biosphere-Atmosphere Interactions in a Changing Global Environment
11	\$104,395	Cattaneo, Matias	Small Bandwidth Asymptotic Theory For Kernel-Based Semiparametric Estimators
12	\$482,974	Collins, Catherine	The Role of Axonal Transport Machinery in Signal Transduction
13	\$320,090	Daly, Samantha	Experimental Investigation of Microstructural Effects on Deformation and Fracture Mechanisms Nanostructured Metallic Materials
14	\$300,000	Del Vecchio, Domitilla	GOALI:Hybrid Dynamic Feedback for Partially Autonomous Cooperative Active Safety Systems
15	\$807,630	Denver, Robert	The Neuroendocrine Stress Axis in Amphibian Physiology and Development
16	\$107,127	Duchin, Moon	Metric Geometry of Groups and Surfaces
17	\$824,532	Edwards, Paul	CDI-Type II: Collaborative Research: Scaling Up: Introducing Commoditized Governance into Community Earth Science Modeling
18	\$140,082	Elling, Volker	Constructive Existence Proofs in Multi-Dimensional Compressible Inviscid Flow
19	\$60,048	Foster, John	An Investigation of Plasma Discharge Ignition in Harmonically Driven Bubbles in Water with Applications for Treatment of Contaminated Water
20	\$449,960	Gonzalez, Richard	The Role of Heuristics in Creative and Innovative Robust Designs: Understanding Both Individual and Team-based Design
21	\$450,005	Ihme, Matthias	CAREER: Fundamental Analysis and Computational Modeling of Acoustic Radiation in Turbulent Reacting Flows
22	\$279,352	Im, Hong	Collaborative Research: Petascale Computing, Visualization and Science Discovery of Turbulent Sooting Flames

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Science Foundation (continued)

23	\$462,249	Jackson, Steven	CAREER: Governing Collaborative Science: Cyberinfrastructure, Scale, and Governance in the Networked Ecological Sciences
24	\$585,000	Katopodes, Nikolaos	Detection and Mitigation of Hazardous Releases in Infrastructure Systems
25	\$356,083	Knowles, L	Collaborative Research: Estimating Species Trees with Population Genetic Approaches: Working a New Phylogenetic Paradigm for 21st Century Phylogenetics
26	\$299,998	Kotov, Nicholas	Self-organized Structures from Nanoparticles and Proteins
27	\$626,091	Kozyra, Janet	Investigating the Threshold for Superstorms
28	\$374,496	Krushelnick, Karl	Collaborative Research: Graduate Student Training Through Research on Plasma-based Acceleration at Laser Power Up to 300 TW
29	\$650,001	Krushelnick, Karl	Femtosecond Probing of Magnetic Fields Generated from Ultra-Intense Laser Plasma Interactions
30	\$400,000	Kuroda, Kenichi	CAREER: Functional Scaffolds for Polymeric Antimicrobial Agents
31	\$100,641	Laza, Radu	Birational Geometry of Moduli Spaces and Applications
32	\$175,000	Lin, Nina	BRIGE: Towards Efficient Production of Next-generation Cellulosic Biofuels: A Synthetic Microbial Consortia Approach
33	\$625,000	Lorenzon, Wolfgang	Intermediate Energy Nuclear Physics
34	\$312,560	Love, Nancy	MSB: Investigating the Relationship Between Structural Diversity and Functional Resilience to Stress in Ammonia Oxidizers
35	\$192,587	Macis, Mario	Field Experiments on the Provision of Incentives for Blood Donation
36	\$1,429,330	Mateo, Mario	The Michigan/Magellan Fiber System (M2FS): An MRI Development Proposal
37	\$174,973	McCormick, Jason	BRIGE: Innovative Connection Design for Enhanced Seismic Performance of Low to Mid-rise Steel Frames
38	\$168,493	Mizruchi, Mark	Changes in the American Corporate Elite, 1960-2010
39	\$350,000	Mortazawi, Amir	Novel RF/Microwave Switchable Filters Based on Electrostrictive Resonance in Ferroelectric Thin Films
40	\$515,000	Najafi, Khalil	NNIN-Equipment Supplement-Cornell
41	\$381,829	O'Foighil, Diarmaid	Community Phylogeny and Global Phylogeography of the Neuston
42	\$240,000	Pan, Xiaoqing	FRG: Switchable Two-Dimensional Materials at Oxide Hetero-Interfaces
43	\$1,700,000	Pang, Stella	MRI: Acquisition of an Ultrahigh Resolution Electron-beam Lithography System for the University of Michigan Lurie Nanofabrication Facility

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Science Foundation (continued)

44	\$450,000	Papaefthymiou, Marios	SHF:Small: Energy-recycling VLSI Systems
45	\$63,379	Parrent, Jeri	Collaborative Research: Can Microbial Symbiosis Mediate Effects of Climate Change on the Functioning of an Ecosystem Engineer?
46	\$81,892	Pipe, Kevin	Carbon Nanotube Aerogels for Next-generation Thermal Management
47	\$390,000	Pollock, Tresa	New Intermetallic Strengthened Cobalt Alloys
48	\$252,510	Prasanna, Kartik	FRG: Collaborative Research: Automorphic forms, Galois representations, periods and p-adic L-functions
49	\$811,897	Ridley, Aaron	Polar Experiment Network for Geospace Upper-Atmosphere Investigations - PENGUIn: Interhemispheric Investigations along the 40 Magnetic Meridian
50	\$366,724	Ridley, Aaron	Understanding the Asymmetric Thermospheric Response to Polar Driving
51	\$1,117,581	Riles, Keith	Search for Gravitational Waves from Spinning Neutron Stars
52	\$249,984	Sadanandarao, Sandeep	CIF: Small: Collaborative Research: Towards a Paradigm-shift in Distributed Information Processing Harnessing Group-structure and Interaction
53	\$2,059,528	Savage, Phillip	EFRI-HyBi: The Science and Engineering of Microalgae Hydrothermal Processing
54	\$492,374	Sienko, Kathleen	CAREER: Improving Postural Balance and Rehabilitation Outcomes using Vibrotactile Sensory Substitution
55	\$400,000	Sih, Vanessa	CAREER: Spin-dependent Optoelectronic Devices for Integrated Photonics
56	\$149,845	Song, Peter	Development of Composite Likelihood in High-Dimensional Correlated Data Analysis: Estimation, Inference, and Model Selection
57	\$59,919	Steiner, Allison	Collaborative Research: Facilitating Career Advancement for Women in the Geosciences Through Earth Science Women's Network (ESWN)
58	\$393,646	Thornton, Katsuyo	Collaborative Research: Three-Dimensional Microstructural and Chemical Mapping of Solid Oxide Fuel Cell Electrodes: Processing, Structure, Stability, and Electrochemistry
59	\$316,251	Thornton, Katsuyo	FRG: Collaborative Research: Mathematical Modeling of Rechargeable Batteries
60	\$251,905	Valentino, Nicholas	Collaborative Research: The Measurement and Identification of Media Priming Effects in Political Science
61	\$440,112	Valluri, Monica	The Dynamics of Rotating Triaxial Galaxies with Massive Black Holes
62	\$226,810	Vandermeer, John	REU Site: ED-QUE2ST (Enhancing Diversity, Quality, and Understanding of the Ecological/Evolutionary Sciences for Tomorrow)
63	\$215,000	Van Der Voo, Rob	Geomagnetic Field Characteristics in the Paleozoic Based on Three Very Extensive Extrusive Sequences

## AWARDS TO THE UNIVERSITY OF MICHIGAN UNDER THE AMERICAN REINVESTMENT AND RECOVERY ACT 2009

### National Science Foundation (continued)

64	\$68,829	van Keken, Peter	Collaborative Research: Synthesis and Integration of Magmagnetic Controls for Subduction Factory Focus Sites
65	\$1,163,026	Walter, Nils	MRI-R2: Development of High-Resolution Single Fluorescent Particle Tracker and Nanomanipulator
66	\$128,385	Walters, Claudia	Toward an Improved Understanding of the Characteristics, Processes, and Impacts of Northerly Southerly Low-level Jets in the Central United States
67	\$1,000,000	Weiss, Janet	Graduate Research Fellowship Program
68	\$126,764	Wulcan, Elizabeth	Residue Currents in Complex Analysis and Commutative Algebra
69	\$168,915	Zak ,Donald	MSB: Assembling Litter Decomposer Communities and Functions from the Leaf to the Landscape
70	\$94,767	Zhang, Zhou	"K"ahler-Ricci Flow with Degenerate Cohomology Limit
71	\$159,799	Zieve, Michael	Polynomial Mappings and Related Matters