

**Annual Report on Research
FY 2015**



College of Sciences and Mathematics

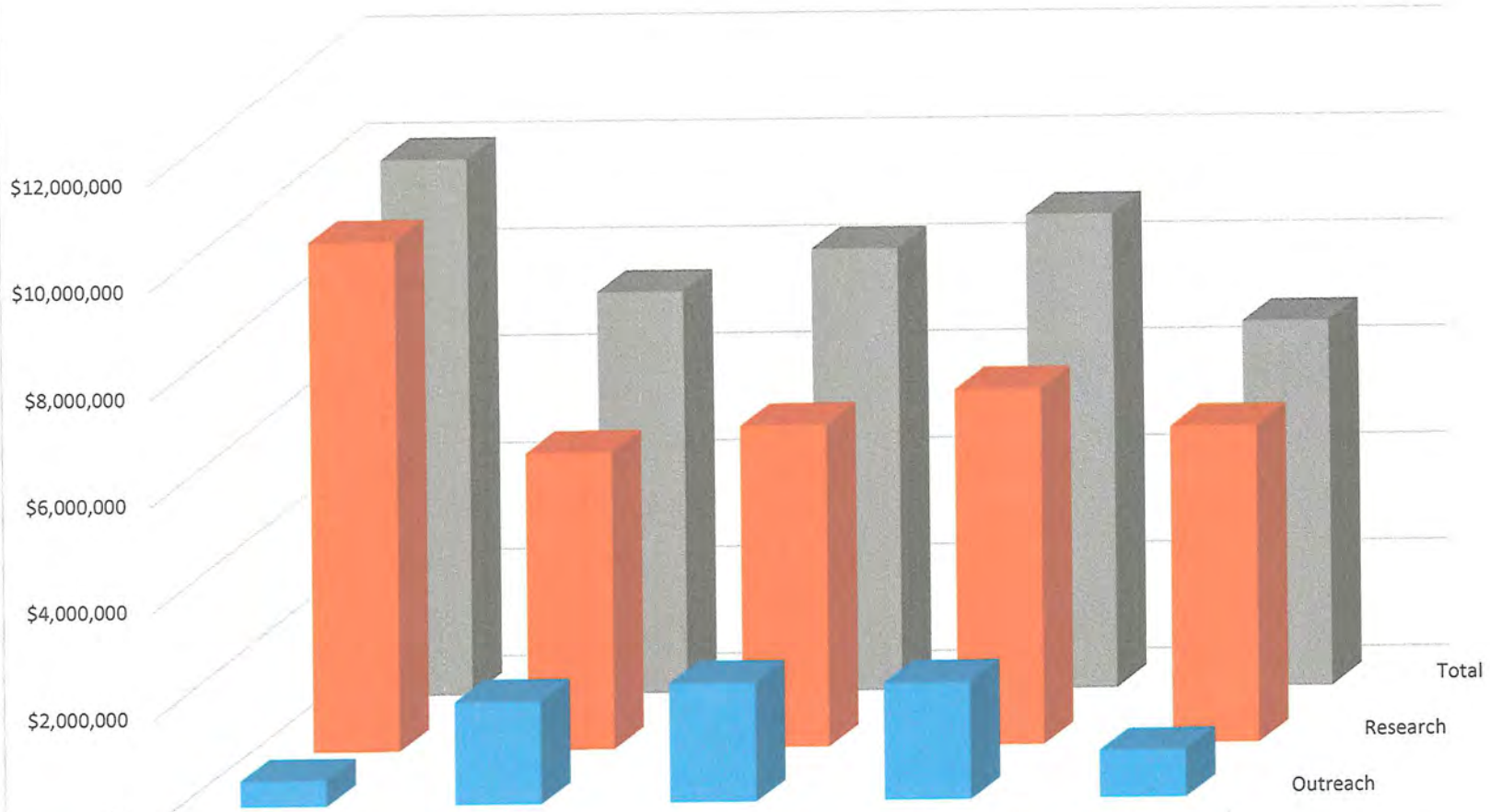
Office of the Associate Dean for Research

Raymond Henry, Ph.D.

Amy Thomas

Courtney Thomas

Extramural Funding COSAM FY 2011- 2015



	2011	2012	2013	2014	2015
■ Outreach	\$499,111	\$1,954,296	\$2,258,089	\$2,223,665	\$915,075
■ Research	\$9,532,139	\$5,551,293	\$6,021,581	\$6,662,918	\$5,927,531
■ Total	\$10,031,250	\$7,505,589	\$8,279,670	\$8,886,583	\$6,842,606

Extramural Research Funding
COSAM Departments
FY 2015

\$3,000,000

\$2,500,000

\$2,000,000

\$1,500,000

\$1,000,000

\$500,000

\$0

Funding

Biological Sciences

\$2,003,887

Chemistry/Biochem

\$941,916

Geosciences

\$268,766

Math/Statistics

\$149,586

Physics

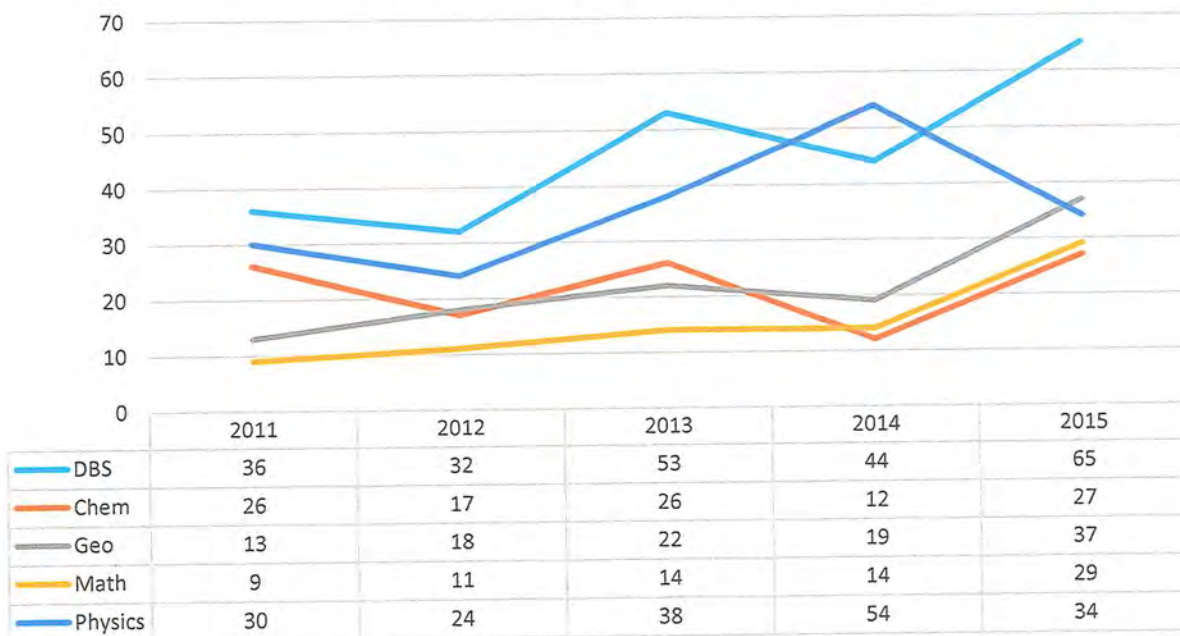
\$2,941,757

Outreach

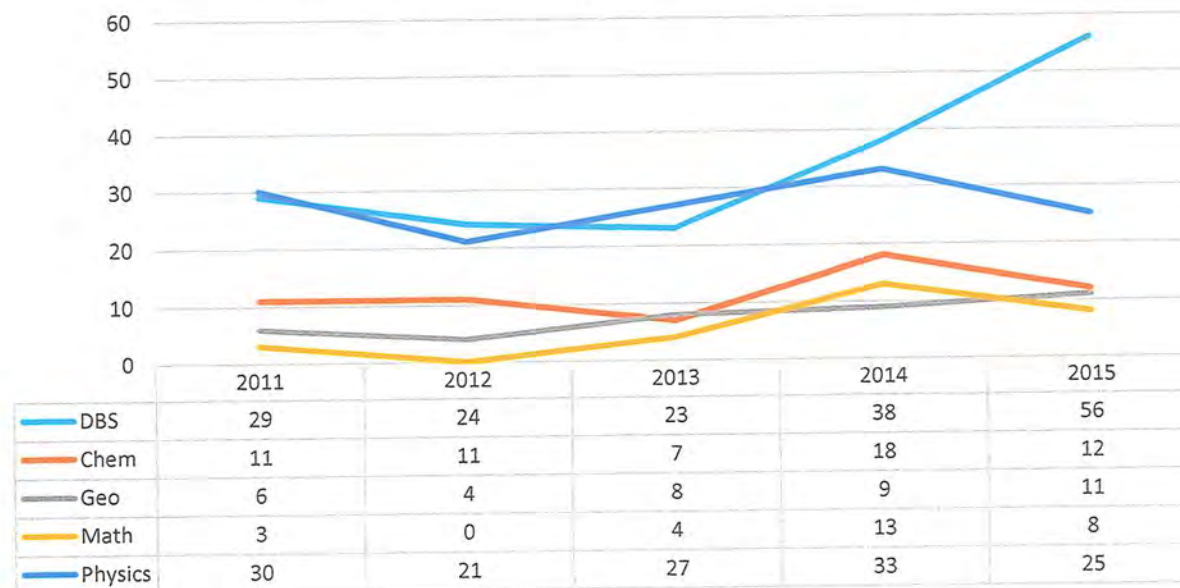
\$536,694

Funding	\$2,003,887	\$941,916	\$268,766	\$149,586	\$2,941,757	\$536,694
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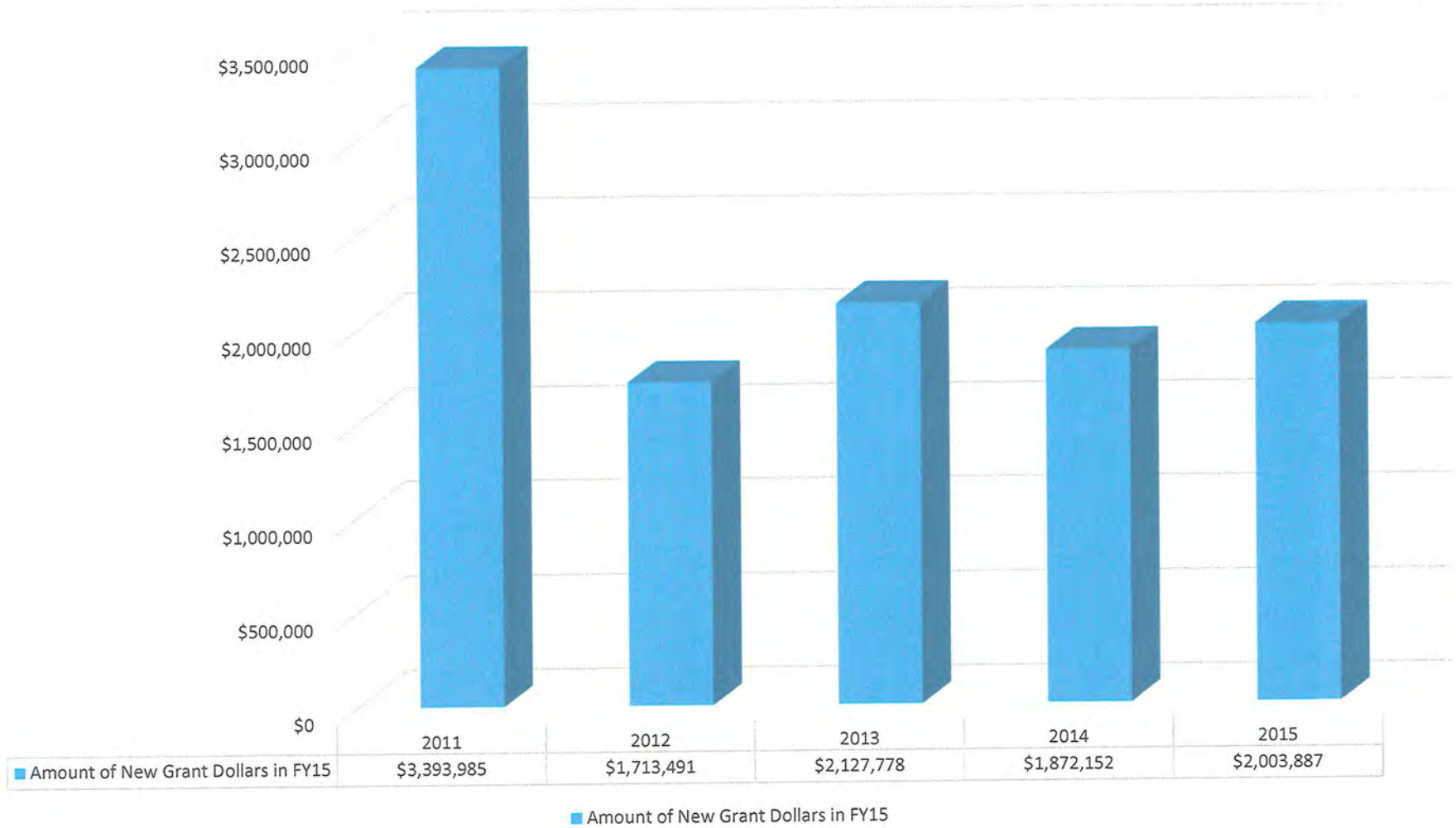
Proposals Submitted by Department FY 11-15



Proposals Awarded by Department FY 11-15



Amount of New Grant Dollars in FY15 Biological Sciences FY 11-15



**Extramural Research Grants with New Dollars Received in FY 15
Biological Sciences**

PI NAME	PI/COPI	DEPARTMENT	PROJECT TITLE	SPONSOR	AMOUNT
Armbruster, Jonathan W.	PI	Biological Sciences	Aquatic diversity of the Western Guiana shield	Coypu Foundation Trust	\$1,000.00
Armbruster, Jonathan W.	PI	Biological Sciences	Systematics and conservation of the southern cavefish species complex	American Museum of Natural History	\$2,700.00
Armbruster, Jonathan W.	PI	Biological Sciences	Aquatic diversity of the western Guiana shield	Coypu Foundation Trust	\$48,982.00
Barbour, Michael S	COPI	Alabama Natural Heritage Program	Distribution and habitat attributes of the Southeastern Pocket Gopher in Alabama	ADCNR-Alabama Dept of Conservation & Natural Resources	\$10,000.00
Armbruster, Jonathan W.	PI	Biological Sciences	Assessing the stability of undescribed species of Typhlichthys (Percopsiformes: Amblyopsidae) in Alabama	ADCNR-Alabama Dept of Conservation & Natural Resources	\$10,000.00
Barbour, Michael S	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$3,334.00
Barbour, Michael S	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$13,336.00

Bond, Jason E.	PI	Biological Sciences	Continued implementation of the Safe Harbor Plan for the endangered Red-Cockaded Woodpecker	ADCNR-Alabama Dept of Conservation & Natural Resources	\$7,500.00
Bond, Jason E.	PI	Biological Sciences	Environmental education at the Robert G. Wehle Nature Center	ADCNR-Alabama Dept of Conservation & Natural Resources	\$10,500.00
Bond, Jason E.	PI	Biological Sciences	Schwalbea Americana survey on Enon and Sehoj Plantations	Alabama Forest Resources Center	\$4,999.50
Bond, Jason E.	PI	Biological Sciences	Carolina & Mississippi Gopher Frog status survey	ADCNR-Alabama Dept of Conservation & Natural Resources	\$20,000.00
Bond, Jason E.	PI	Biological Sciences	Black Warrior Waterdog survey using environmental DNA (eDNA) and conventional sampling	USDI - FWS - US Dept of the Interior - Fish & Wildlife Service	\$18,771.00
Bond, Jason E.	PI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$3,334.00
Bond, Jason E.	PI	Biological Sciences	Whence white? Evolutionary origins and current status of the Namib's "white" darkling beetles	East Carolina University	\$6,258.00
Bond, Jason E.	PI	Biological Sciences	Natchez Trace accuracy assessment sampling	NatureServe	\$32,971.50

Bond, Jason E.	PI	Biological Sciences	Conservation of Price's potato bean on Sauta Cave National Wildlife Refuge	USDI - FWS - US Dept of the Interior - Fish & Wildlife Service	\$1,415.40
Bond, Jason E.	PI	Biological Sciences	Hellbender status survey in Alabama using standard methods and environmental DNA (eDNA)	ADCNR-Alabama Dept of Conservation & Natural Resources	\$35,500.00
Bond, Jason E.	PI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$13,336.00
Cobine, Paul A.	PI	Biological Sciences	Transport and distribution of mitochondrial copper	NSF-National Science Foundation	\$8,000.00
Cobine, Paul A.	PI	Biological Sciences	Transport and distribution of mitochondrial copper	NSF-National Science Foundation	\$139,022.00
Cobine, Paul A.	COPI	Biological Sciences	Calcium regulation of interactions between a Xylem- inhibiting pathogenic bacterium & host plants	USDA-NIFA-National Institute of Food & Agriculture	\$169,746.30
Dobson, F. Stephen	PI	Biological Sciences	NSF Graduate Research Fellowship Program (GRFP) - Hannah Correia	NSF-National Science Foundation	\$19,456.00
Feminella, John W.	PI	Biological Sciences	Black Water Waterdog, Flattened Musck Turtle, Streak Sorus Fern, & Kral's water plantain studies in the Bankhead National Forest, AL	USDA - Forest Service	\$63,278.00

Godwin, James C.	COPI	Biological Sciences	Black Warrior Waterdog survey using environmental DNA (eDNA) and conventional sampling	USDI - FWS - US Dept of the Interior - Fish & Wildlife Service	\$18,771.00
Guyer, Craig R.	PI	Biological Sciences	Brumation behavior & reproductive success of Argentine tegus (<i>Tupinambis merianae</i>) Hel in semi- natural enclosures at a high-latitude site	USDI - U.S. Geological Survey	\$14,986.00
Helms, Brian	PI	Biological Sciences	Population structure and conservation status of burrowing bog crayfishes (<i>Fallicambarus</i> spp.) in South Alabama	ADCNR-Alabama Dept of Conservation & Natural Resources	\$23,410.00
Helms, Brian	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$3,330.00
Helms, Brian	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$13,320.00
Henry, Raymond	COPI	Biological Sciences	Epscor	NSF-National Science Foundation	\$93,000.00
Hermann, Sharon M.	PI	Biological Sciences	Assessment to guide restoration and management of longleaf pine stands at Albany MCLB	Cardno GS Inc	\$66,642.30
Hermann, Sharon M.	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$13,336.00

Hermann, Sharon M.	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$3,334.00
Hill, Geoffrey	PI	Biological Sciences	NSF Graduate Research Fellowship Program (Rebecca Koch)	NSF-National Science Foundation	\$962.00
Hill, Geoffrey	PI	Biological Sciences	Dissertation Research: Forging a context for female mate choice for carotenoid ornaments	NSF-National Science Foundation	\$19,240.00
Hood, Wendy R.	PI	Biological Sciences	The mechanistic basis for improved metabolic health in females following lactation	DHHS-PHS-NIH-NICHD-National Institute of Child Health and Human Development	\$37,000.00
Hood, Wendy R.	PI	Biological Sciences	Effects of mitohormesis on reproduction and longevity	NSF-National Science Foundation	\$199,770.00
Hood, Wendy R.	PI	Biological Sciences	Effects of mitohormesis on reproduction and longevity	NSF-National Science Foundation	\$2,250.00
Liles, Mark R.	PI	Biological Sciences	Studies to improve the control of virulent aeromonas hydrophila & evaluate the impact on environmental factors on its abundance in catfish aquaculture ponds	MSU - SRAC - Mississippi State University - Southern Regional Aquaculture Center	\$19,616.26
Liles, Mark R.	PI	Biological Sciences	Evaluation of antimicrobial activity for rhizobacteria against ESKAPE pathogens	Agricen Sciences	\$21,428.00

Liles, Mark R.	COPI	Biological Sciences	Emerging virulent aeromonas hydrophila (VAh): Research to understand the pathogen and its management through field trials in West Alabama	Alabama Dept. of Agriculture and Industries	\$18,398.16
Liles, Mark R.	COPI	Biological Sciences	Studies to improve the control of virulent aeromonas hydrophila & evaluate the impact on environmental factors on its abundance in catfish aquaculture ponds	MSU - SRAC - Mississippi State University - Southern Regional Aquaculture Center	\$9,375.06
Mendonca, Mary T.	PI	Biological Sciences	Collaborative Research: Determining the mechanisms by which parental testosterone biases the ratio of male to female birds	NSF-National Science Foundation	\$308,947.00
Rashotte, Aaron M.	COPI	Biological Sciences	Calcium regulation of interactions between a Xylem- inhibiting pathogenic bacterium & host plants	USDA-NIFA-National Institute of Food & Agriculture	\$18,860.70
Santos, Scott R.	PI	Biological Sciences	Intergovernmental Personnel Act (IPA) NSF assignment	NSF-National Science Foundation	\$139,775.00
Schotz, Alfred	COPI	Alabama Natural Heritage Program	Conservation of Price's potato bean on Sauta Cave National Wildlife Refuge	USDI - FWS - US Dept of the Interior - Fish & Wildlife Service	\$12,738.60
Schotz, Alfred	COPI	Alabama Natural Heritage Program	Schwalbea Americana survey on Enon and Sehoy Plantations	Alabama Forest Resources Center	\$4,999.50
Schotz, Alfred	COPI	Alabama Natural Heritage Program	Natchez Trace accuracy assessment sampling	NatureServe	\$32,971.50

Schotz, Alfred	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$3,334.00
Schotz, Alfred	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$13,336.00
Stone, Margaret Kay	COPI	Biological Sciences	Environmental education at the Robert G. Wehle Nature Center	ADCNR-Alabama Dept of Conservation & Natural Resources	\$10,500.00
Wada, Haruka	PI	Biological Sciences	NSF Graduate Research Fellowship Program (GRFP) - Chloe Josefson	NSF-National Science Foundation	\$28,167.00
Warner, Daniel A.	PI	Biological Sciences	NSF Graduate Research Fellowship Program (GRFP) - Corey Dale Cates	NSF-National Science Foundation	\$28,166.00
Wit, Lawrence C.	PI	Sciences & Math - Admin	Rural medicine program	Alabama Dept of Public Health - ALDoPH	\$32,763.00
Wit, Lawrence C.	PI	Sciences & Math - Admin	Rural medicine program	Alabama Dept of Public Health - ALDoPH	\$131,050.00
Wooten, Michael C.	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$3,334.00

Wooten, Michael C.	COPI	Biological Sciences	Ecological inventory and conservation planning for the national forests in Alabama	USDA - Forest Service	\$13,336.00
		Biological Sciences Count	56		
		Biological Sciences Total			\$2,003,886.78

Biological Sciences Proposals Submitted FY 2015				
Proposal ID	PI/CoPI	Title	Department	Amount requested
0014-15	Armbruster, Jonathan W.	PI	Biological Sciences	\$19,240.00
1243-15	Barbaree, James M.	COPI	Biological Sciences	\$249,169.00
1288-15	Barbour, Michael S	COPI	Biological Sciences	\$26,343.00
1929-15	Barbour, Michael S	COPI	Biological Sciences	\$90,000.00
1289-15	Barbour, Michael S	COPI	Biological Sciences	\$10,000.00
2169-15	Barbour, Michael S	COPI	Biological Sciences	\$100,000.00
1356-15	Barbour, Michael S	COPI	Biological Sciences	\$19,118.00
0275-15	Bond, Jason E.	PI	Biological Sciences	\$3,059.00
2058-15	Bond, Jason E.	PI	Biological Sciences	\$443,625.00
2059-15	Bond, Jason E.	PI	Biological Sciences	\$2,025.00
2256-15	Bond, Jason E.	PI	Biological Sciences	\$393,431.00
0276-15	Bond, Jason E.	PI	Biological Sciences	\$44,097.00
1517-15	Bond, Jason E.	PI	Biological Sciences	\$2,529.00

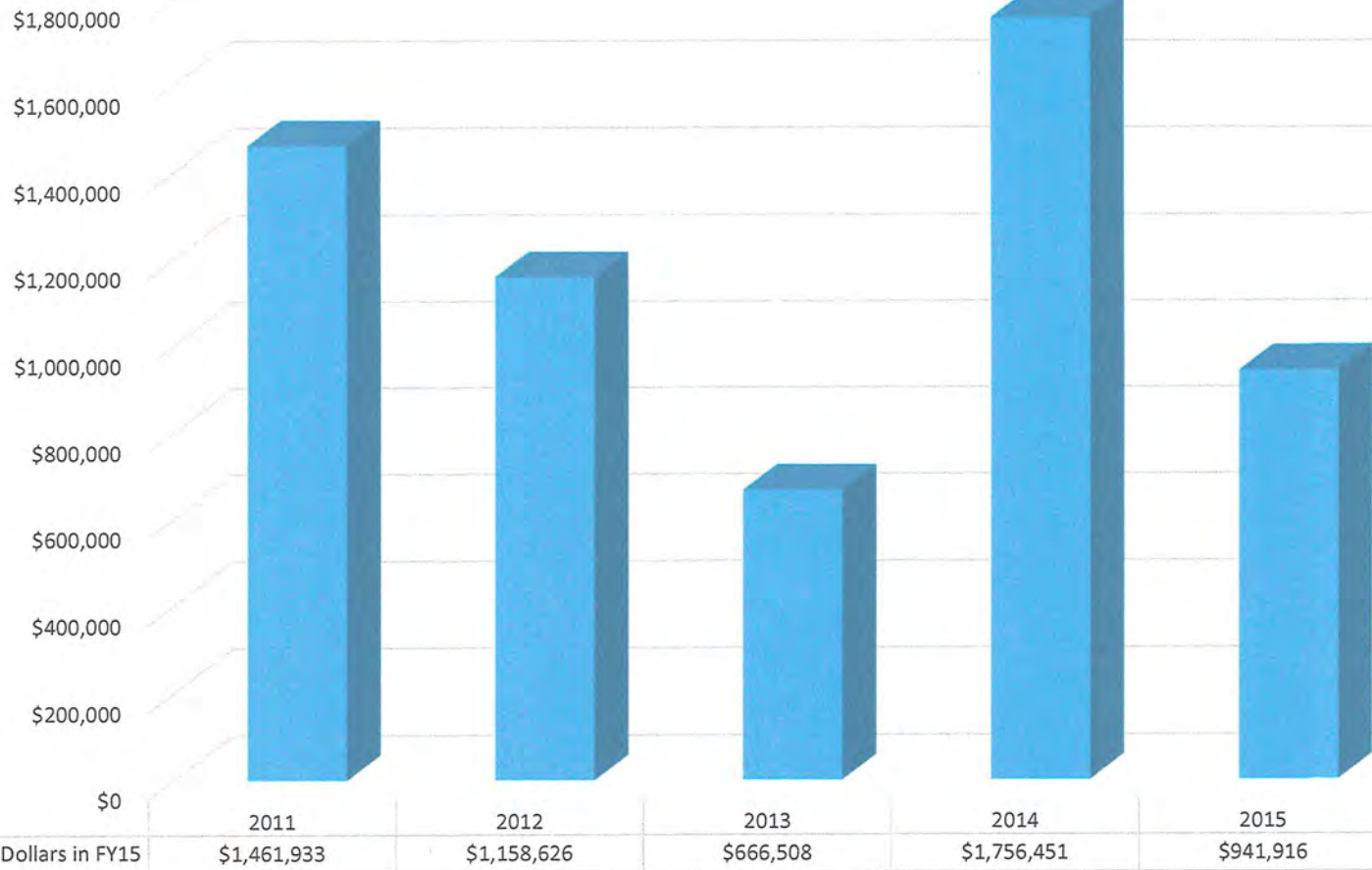
2057-15	Bond, Jason E.	PI	Biological Sciences	\$877,198.00
0681-15	Bond, Jason E.	PI	Biological Sciences	\$9,999.00
1945-15	Bond, Jason E.	PI	Biological Sciences	\$220,535.00
0926-15	Brannock, Pamela	PI	Biological Sciences	\$37,539.00
2573-15	Cobine, Paul A.	PI	Biological Sciences	\$1,691,035.00
0039-15	Cobine, Paul A.	COPI	Biological Sciences	\$377,214.00
2060-15	Dobson, F. Stephen	PI	Biological Sciences	\$1,232,150.00
0106-15	Feminella, John W.	COPI	Biological Sciences	\$75,752.00
1382-15	Godwin, James C.	COPI	Biological Sciences	\$22,403.00
1383-15	Godwin, James C.	COPI	Biological Sciences	\$35,500.00
1264-15	Goertzen, Leslie Richard	COPI	Biological Sciences	\$500,000.00
2259-15	Goertzen, Leslie Richard	PI	Biological Sciences	\$380,156.00
0915-15	Graze, Rita	PI	Biological Sciences	\$165,324.00
1543-15	Graze, Rita	PI	Biological Sciences	\$1,521,907.00

1814-15	Guyer, Craig R.	PI	Biological Sciences	\$41,149.00
0837-15	Halanych, Kenneth M.	PI	Biological Sciences	\$192,624.00
1279-15	Halanych, Kenneth M.	PI	Biological Sciences	\$124,332.00
1284-15	Halanych, Kenneth M.	PI	Biological Sciences	\$184,137.00
2092-15	Halanych, Kenneth M.	PI	Biological Sciences	\$783,608.00
1168-15	Helms, Brian	PI	Biological Sciences	\$19,966.00
1545-15	Helms, Brian	COPI	Biological Sciences	\$330,011.00
1707-15	Helms, Brian	PI	Biological Sciences	\$177,757.00
	Henry, Raymond	COPI	Biological Sciences	\$1,250,000.00
0341-15	Hermann, Sharon M.	PI	Biological Sciences	\$64,357.00
0342-15	Hermann, Sharon M.	PI	Biological Sciences	\$43,354.00
0012-15	Hill, Geoffrey	PI	Biological Sciences	\$19,240.00
1027-15	Hill, Geoffrey	PI	Biological Sciences	\$143,042.00
2112-15	Hill, Geoffrey	PI	Biological Sciences	\$848,367.00

0013-15	Koch, Rebecca	COPI	Biological Sciences	\$19,240.00
2230-15	Liles, Mark R.	PI	Biological Sciences	\$18,797.00
2261-15	Liles, Mark R.	PI	Biological Sciences	\$98,862.00
1653-15	Liles, Mark R.	COPI	Biological Sciences	\$299,398.00
2160-15	Liles, Mark R.	PI	Biological Sciences	\$250,000.00
1268-15	Rashotte, Aaron M.	PI	Biological Sciences	\$152,826.00
0499-15	Santos, Scott R.	COPI	Biological Sciences	\$109,633.00
1042-15	Santos, Scott R.	COPI	Biological Sciences	\$172,320.00
1395-15	Santos, Scott R.	COPI	Biological Sciences	\$15,956.00
1196-15	Schotz, Alfred	COPI	Biological Sciences	\$9,999.00
1834-15	Schotz, Alfred	COPI	Biological Sciences	\$14,154.00
1544-15	Schotz, Alfred	COPI	Biological Sciences	\$289,427.00
1686-15	Schwartz, Elizabeth H	PI	Biological Sciences	\$334,150.00
1030-15	Steen, David A.	PI	Biological Sciences	\$42,426.00

1029-15	Steen, David A.	PI	Biological Sciences	\$687,417.00
2287-15	Steen, David A.	PI	Biological Sciences	\$101,123.00
2378-15	Steen, David A.	PI	Biological Sciences	\$97,500.00
2051-15	Stevison, Laurie	PI	Biological Sciences	\$133,092.00
1163-15	Suh, Sang-Jin	PI	Biological Sciences	\$43,959.00
1401-15	Suh, Sang-Jin	PI	Biological Sciences	\$499,989.00
1257-15	Suh, Sang-Jin	COPI	Biological Sciences	\$129,245.00
1987-15	Wada, Haruka	PI	Biological Sciences	\$1,227,648.00
2453-15	Warner, Daniel A.	PI	Biological Sciences	\$17,604.59
2476-15	Warner, Daniel A.	PI	Biological Sciences	\$235,844.00
	Total Requested			\$17,896,901.59

Amount of New Grant Dollars in FY15 Chemistry & Biochemistry FY 11-15



■ Amount of New Grant Dollars in FY15

■ Amount of New Grant Dollars in FY15

Extramural Research Grants with New Dollars Received in FY 15
Chemistry and Biochemistry

PI NAME	PI/COPI	DEPARTMENT	PROJECT TITLE	SPONSOR	AMOUNT
Duin, Eduardus C.	PI	Chemistry & BioChemistry	Iron-sulfur clusters in the evolution of the enzymatic synthesis of RNA	University of Arkansas	\$31,633.00
Duin, Eduardus C.	PI	Chemistry & BioChemistry	Collaborative Research: Understanding electron bifurcation in methanogenic archaea	NSF-National Science Foundation	\$125,000.00
Ellis, Holly R.	PI	Chemistry & BioChemistry	Defining the mechanistic strategies of defulfonation in the alkanesulfonate sulfonate monooxygenase system	NSF-National Science Foundation	\$159,188.00
Ellis, Holly R.	PI	Chemistry & BioChemistry	Defining the mechanistic strategies of defulfonation in the alkanesulfonate sulfonate monooxygenase system	NSF-National Science Foundation	\$5,305.00
Goldsmith, Christian R.	PI	Chemistry & BioChemistry	The development of cobalt catalysts for the deformylation of aldehydes to alkenes	ACS PRF - American Chemical Society- Petroleum Research Fund	\$110,000.00
Gorden, Anne Elizabeth V.	PI	Chemistry & BioChemistry	Molecular recognition & selective sequestration for detection of Uranium, Neptunium or Plutonium	DOD-DTRA-Defense Threat Reduction Agency	\$142,750.00
Mansoorabadi, Steven O.	PI	Chemistry & BioChemistry	Identify the enzymes for the biosynthetic pathway of the cofactor F430	Arzeda Corp.	\$20,000.00

Shannon, Curtis G.	PI	Chemistry & BioChemistry	Tuskegee University Nano-Bio MSP	Tuskegee University	\$65,660.00
Shannon, Curtis G.	COPI	Chemistry & BioChemistry	Collaborative Research: The Tuskegee Alliance to develop, implement & study a virtual graduate education model for underrepresented minorities in STEM	NSF-National Science Foundation	\$15,000.00
Shannon, Curtis G.	COPI	Chemistry & BioChemistry	Collaborative Research: The Tuskegee Alliance to develop, implement & study a virtual graduate education model for underrepresented minorities in STEM	NSF-National Science Foundation	\$149,340.40
Shannon, Curtis G.	PI	Chemistry & BioChemistry	Tuskegee University Nano-Bio MSP	Tuskegee University	\$8,040.00
Stanbury, David M.	PI	Chemistry & BioChemistry	One-electron oxidation of alkylsulfonic acids	ACS-PRF - American Chemical Society- Petroleum Research Fund	\$110,000.00
		Chemistry & BioChemistry Count		12	
		Chemistry & BioChemistry Total			\$941,916.40

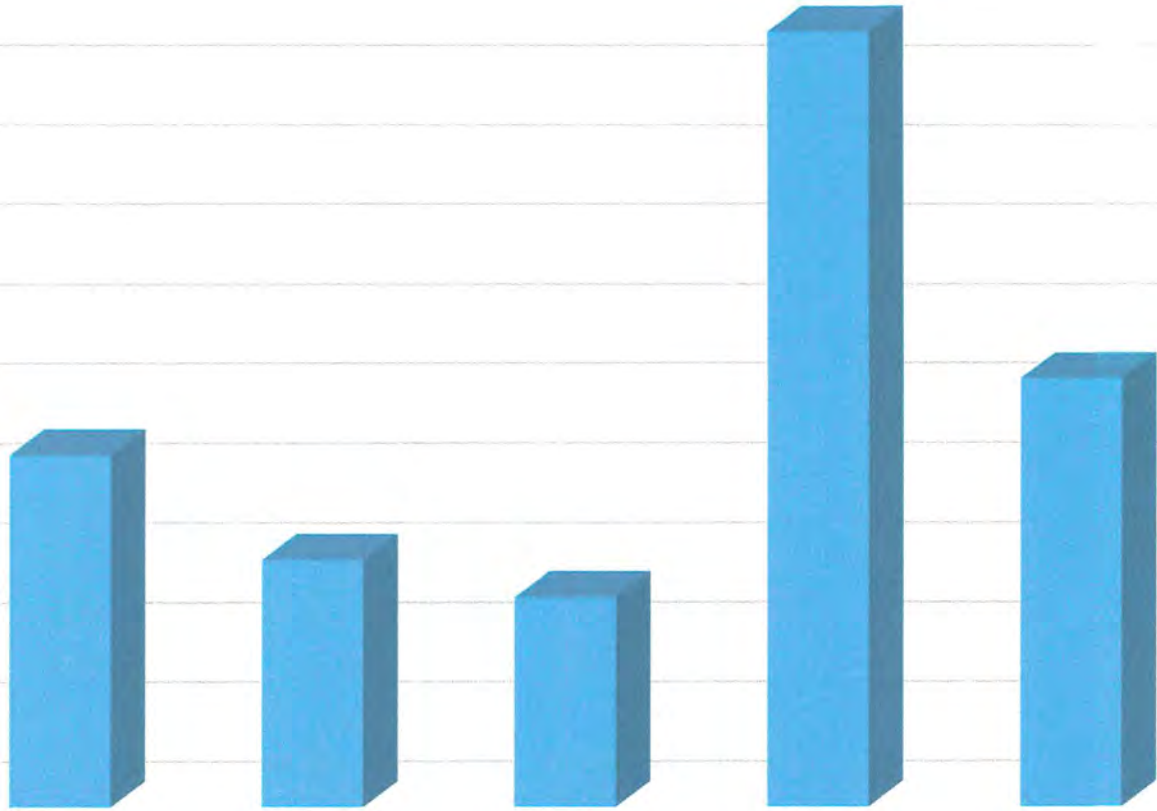
Chemistry & Biochemistry Proposals Submitted FY 2015				
Proposal ID	PI/COPI	Title	Department	Amount Requested
1635-15	Acevedo, Orlando A.	PI	Chemistry & BioChemistry	\$325,000.00
1400-15	Blumenthal, Rik	PI	Chemistry & BioChemistry	\$505,111.00
0489-15	Duin, Eduardus C.	PI	Chemistry & BioChemistry	\$36,242.00
0139-15	Duin, Eduardus C.	PI	Chemistry & BioChemistry	\$378,422.00
0663-15	Duin, Eduardus C.	PI	Chemistry & BioChemistry	\$695,730.00
1877-15	Easley, Christopher J.	PI	Chemistry & BioChemistry	\$1,829,975.00
2533-15	Easley, Christopher J.	COPI	Chemistry & BioChemistry	\$106,720.00
1764-15	Easley, Christopher J.	PI	Chemistry & BioChemistry	\$68,970.00
0757-15	Goldsmith, Christian R.	PI	Chemistry & BioChemistry	\$140,108.00
0041-15	Goldsmith, Christian R.	PI	Chemistry & BioChemistry	\$55,000.00
2530-15	Goldsmith, Christian R.	PI	Chemistry & BioChemistry	\$129,653.00
0297-15	Goodwin, Douglas C.	PI	Chemistry & BioChemistry	\$168,401.00
2274-15	Gorden, Anne Elizabeth V.	PI	Chemistry & BioChemistry	\$1,590,254.00

2533-15	Gorden, Anne Elizabeth V.	COPI	Chemistry & BioChemistry	\$106,720.00
2578-15	Gorden, Anne Elizabeth V.	PI	Chemistry & BioChemistry	\$470,888.00
	Liu, Chong	COPI	Chemistry & BioChemistry	
0078-15	Mansoorabadi, Steven O.	PI	Chemistry & BioChemistry	\$67,235.00
0885-15	Mansoorabadi, Steven O.	PI	Chemistry & BioChemistry	\$40,000.00
0190-15	Mansoorabadi, Steven O.	PI	Chemistry & BioChemistry	\$171,413.00
2016-15	Mansoorabadi, Steven O.	PI	Chemistry & BioChemistry	\$994,160.00
0123-15	Merner, Bradley L.	PI	Chemistry & BioChemistry	\$70,000.00
0133-15	Merner, Bradley L.	PI	Chemistry & BioChemistry	\$124,585.00
2603-15	Merner, Bradley L.	PI	Chemistry & BioChemistry	\$453,410.00
0889-15	Mills, German	COPI	Chemistry & BioChemistry	\$209,817.00
2548-15	Ortiz, Joseph Vincent	PI	Chemistry & BioChemistry	\$511,222.00
0531-15	Patkowski, Konrad J.	COPI	Chemistry & BioChemistry	\$132,309.00
1768-15	Schneller, Stewart W.	PI	Chemistry & BioChemistry	\$399,546.00

	Total Requested			\$9,780,891.00
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Amount of New Grant Dollars in FY15 Geosciences FY 11-15

\$500,000
\$450,000
\$400,000
\$350,000
\$300,000
\$250,000
\$200,000
\$150,000
\$100,000
\$50,000
\$0



■ Amount of New Grant Dollars in FY15

■ Amount of New Grant Dollars in FY15

**Extramural Research Grants with New Dollars Received in FY 15
Geosciences**

PI NAME	PI/COP I	DEPARTMENT	PROJECT TITLE	SPONSOR	AMOUNT
King, David T.	PI	Geosciences	Scientific research on combining sample analysis and numerical modeling to reconstruct the origin and evolution of Flynn	USDI - U.S. Geological Survey	\$24,000.00
Marzen, Luke J.	PI	Geosciences	StateView research program development & operations for the State of Alabama	AmericaView, Inc	\$24,900.00
Marzen, Luke J.	PI	Geosciences	StateView research program development & operations for the State of Alabama	AmericaView, Inc	\$11,750.00
Marzen, Luke J.	COPI	Geosciences	UAVs applications in Alabama farming	Alabama Wheat & Grain Producers	\$1,500.00
Mitra, Chandana	COPI	Geosciences	StateView research program development & operations for the State of Alabama	AmericaView, Inc	\$11,750.00
Saunders, James A.	PI	Geosciences	Transport and deposition of metallic nanoparticles as a hydrothermal ore-	NSF-National Science Foundation	\$67,959.00
Shepherd, Stephanie L.	PI	Geosciences	Collaborative Research: Defining the role of heterogeneous lithology in bedrock incision	NSF-National Science Foundation	\$20,296.00
Steltenpohl, Mark G.	PI	Geosciences	CESU: Little River Canyon	USDI - National Park Service	\$82,500.00
Steltenpohl, Mark G.	PI	Geosciences	Geology of the 1:24,000 Roanoke East, AL quadrangle	USDI - U.S. Geological Survey	\$17,165.00
Wolf, Lorraine W.	PI	Geosciences	Paleoliquefaction studies in moderate seismicity regions with a history of large	Tuttle and Associates, Georgetown, Maine	\$6,840.00
Wright, Shawn Patrick	PI	Geosciences	A fresh perspective on ancient martian volcanism: Investigation of new types of	Planetary Science Institute	\$106.00
		Geosciences	11		
		Geosciences			\$268,766.00

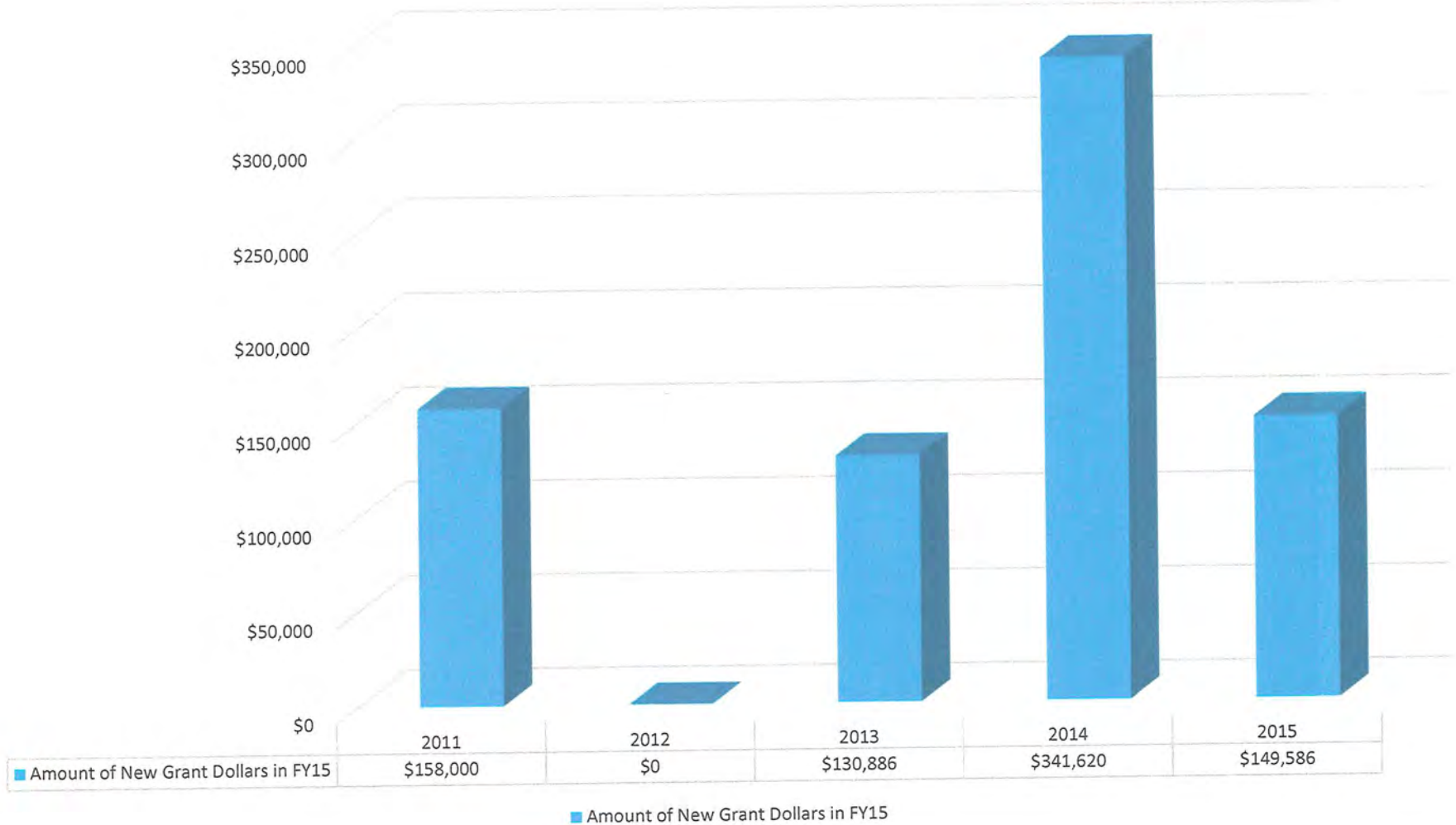
Geosciences Proposals Submitted FY 2015

Proposal ID	PI/COPI	Title	Department	Amount Requested
1990-15	Chaney, Phillip L.	PI	Geosciences	\$61,851.00
2429-15	Chaney, Phillip L.	PI	Geosciences	\$68,419.00
2319-15	Chaney, Phillip L.	PI	Geosciences	\$60,945.00
0576-15	Hames, Willis E.	PI	Geosciences	\$142,472.00
0625-15	Hames, Willis E.	PI	Geosciences	\$51,050.00
0578-15	King, David T.	PI	Geosciences	\$17,097.00
2272-15	King, David T.	COPI	Geosciences	\$1,450,000.00
	Lee, Ming-Kuo	COPI	Geosciences	
0339-15	Lee, Ming-Kuo	COPI	Geosciences	\$216,410.00
0943-15	Lee, Ming-Kuo	PI	Geosciences	\$303,152.00
1004-15	Lee, Ming-Kuo	COPI	Geosciences	\$217,336.00
	Lee, Ming-Kuo	COPI	Geosciences	
	Lee, Yoon Y.	PI	Geosciences	
0077-15	Li, Yingru	PI	Geosciences	\$269,727.00
0154-15	Li, Yingru	COPI	Geosciences	\$45,501.00

	Li, Yingru	COPI	Geosciences	
	Marzen, Luke J.	COPI	Geosciences	
1721-15	Marzen, Luke J.	PI	Geosciences	\$23,500.00
2056-15	Marzen, Luke J.	COPI	Geosciences	\$342,593.00
0421-15	Mitra, Chandana	PI	Geosciences	\$41,489.00
0835-15	Mitra, Chandana	PI	Geosciences	\$60,778.00
1345-15	Mitra, Chandana	PI	Geosciences	\$80,789.00
1585-15	Mitra, Chandana	COPI	Geosciences	\$90,000.00
2291-15	Mitra, Chandana	PI	Geosciences	\$134,005.00
	Mitra, Chandana	COPI	Geosciences	
	Saunders, James A.	COPI	Geosciences	
0658-15	Saunders, James A.	COPI	Geosciences	\$514,558.00
0173-15	Steltenpohl, Mark G.	PI	Geosciences	\$17,165.00
2147-15	Steltenpohl, Mark G.	PI	Geosciences	\$82,500.00
	Uddin, Ashraf	COPI	Geosciences	

0944-15	Uddin, Ashraf	PI	Geosciences	\$3,000.00
	Uddin, Ashraf	PI	Geosciences	
1569-15	Wolf, Lorraine W.	PI	Geosciences	\$59,650.00
0099-15	Zou, Haibo	PI	Geosciences	\$28,000.00
0567-15	Zou, Haibo	PI	Geosciences	\$77,884.00
1919-15	Zou, Haibo	PI	Geosciences	\$153,278.00
	Zou, Haibo	PI	Geosciences	
	Total Requested			\$4,613,149.00

Amount of New Grant Dollars in FY15 Mathematics and Statistics FY 11-15



Extramural Research Grants Receiving New Dollars in FY 15 Mathematics and Statistics

PI NAME	PI/COPI	DEPARTMENT	PROJECT TITLE	SPONSOR	AMOUNT
Albrecht, Ulrich F.	COPI	Mathematics and Statistics	TEAM-Math and AMSTI mathematics professional learning communities	Alabama Dept. of Education - ALDoEd	\$5,397.60
Albrecht, Ulrich F.	COPI	Mathematics and Statistics	TEAM-Math and AMSTI mathematics professional learning communities	Alabama Dept. of Education - ALDoEd	\$31,688.20
Cao, Guanqun (Vivian)	PI	Mathematics and Statistics	Statistical inference for complex data	Simons Foundation	\$7,000.00
Cao, Yanzhao	PI	Mathematics and Statistics	Efficient numerical methods for stochastic partial differential equations	Florida A & M University	\$50,000.00
Jenda, Overtoun M.	PI	Mathematics and Statistics	Research experience for undergraduates in algebra & discrete mathematics at AU	NSF-National Science Foundation	\$44,800.00
Jenda, Overtoun M.	PI	Mathematics and Statistics	Research experience for undergraduates in algebra & discrete mathematics at AU	NSF-National Science Foundation	\$22,786.00
McDonald, Jessica Mae	PI	Mathematics and Statistics	Conference on Designs, Graphs and Codes	NSF-National Science Foundation	\$25,000.00
Meir, Amnon J.	PI	Mathematics and Statistics	Intergovernmental Personnel Act (IPA) NSF assignment	NSF-National Science Foundation	\$2,570.00
		Mathematics and Statistics Count	8		
		Mathematics and Statistics Total			\$149,586.00

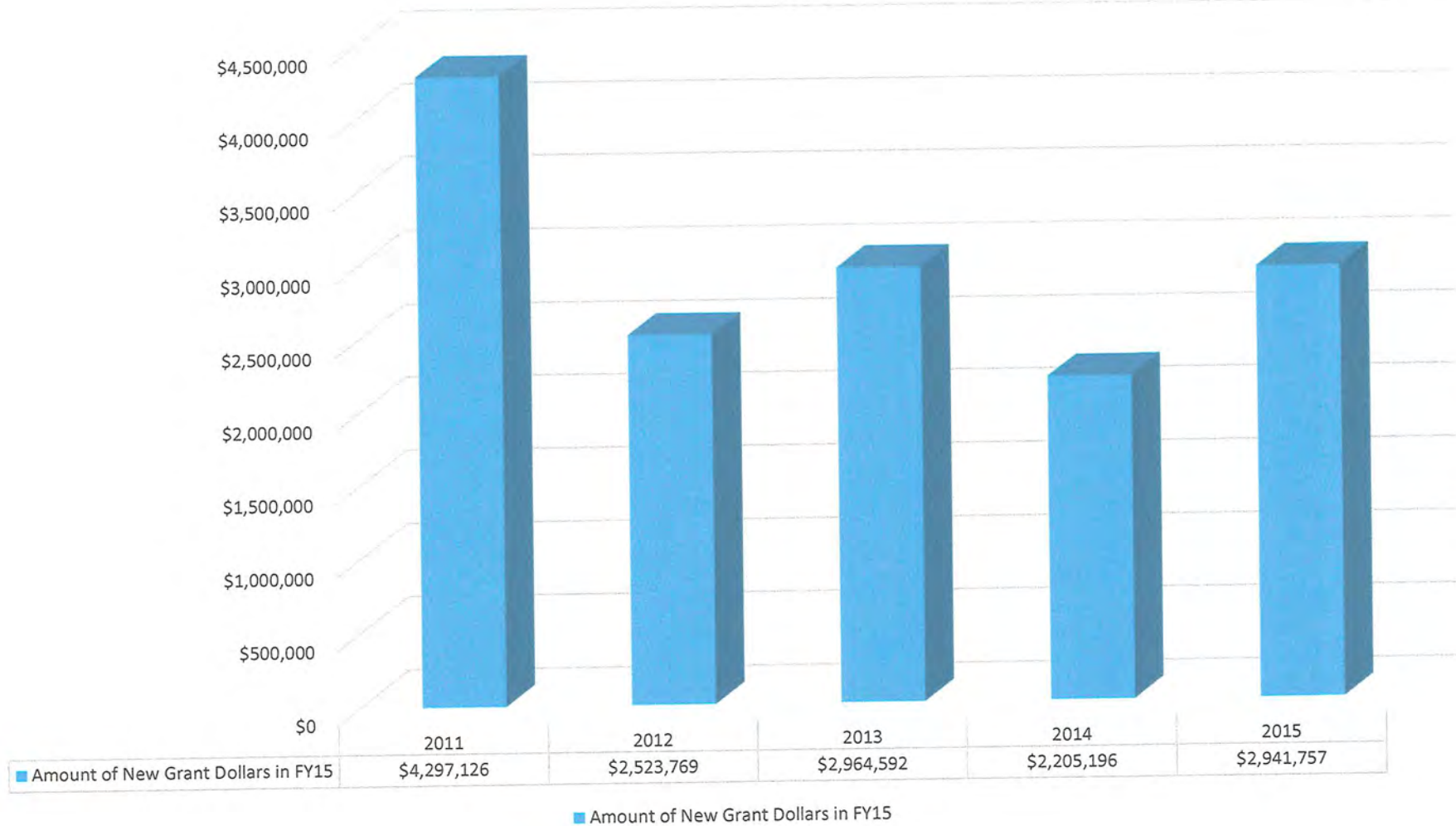
Mathematics & Statistics Proposals Submitted FY 2015

Proposal ID	PI/CoPI	Title	Department	Amount Requested
0201-15	Abebe, Ash	PI	Mathematics and Statistics	\$54,491.00
0537-15	Albrecht, Ulrich F.	PI	Mathematics and Statistics	\$116,831.00
0672-15	Cao, Guanqun (Vivian)	PI	Mathematics and Statistics	\$7,000.00
0112-15	Cao, Guanqun (Vivian)	PI	Mathematics and Statistics	\$244,843.00
0470-15	Cao, Yanzhao	PI	Mathematics and Statistics	\$105,511.00
0480-15	Cao, Yanzhao	PI	Mathematics and Statistics	\$226,036.00
0699-15	Feng, Ziqin	PI	Mathematics and Statistics	\$7,000.00
0172-15	Feng, Ziqin	PI	Mathematics and Statistics	\$51,035.00
1417-15	Gaillard, Philippe R.	COPI	Mathematics and Statistics	\$766,597.00
	Glotov, Dmitry	COPI	Mathematics and Statistics	
0727-15	Govil, Narendra	PI	Mathematics and Statistics	\$7,000.00

0673-15	Han, Xiaoying	PI	Mathematics and Statistics	\$7,000.00
0280-15	Han, Xiaoying	PI	Mathematics and Statistics	\$69,447.00
	Han, Xiaoying	COPI	Mathematics and Statistics	
2255-15	Johnson, Peter D.	COPI	Mathematics and Statistics	\$479,495.00
0468-15	Kuperberg, Krystyna M.	PI	Mathematics and Statistics	\$25,000.00
2017-15	Lin, Junshan	PI	Mathematics and Statistics	\$440,051.00
0719-15	McDonald, Jessica Mae	PI	Mathematics and Statistics	\$7,000.00
1723-15	McDonald, Jessica Mae	PI	Mathematics and Statistics	\$25,000.00
1534-15	McDonald, Jessica Mae	PI	Mathematics and Statistics	\$25,000.00
0147-15	Nane, Erkan	PI	Mathematics and Statistics	\$39,639.00
0048-15	Oeding, Luke A.	PI	Mathematics and Statistics	\$78,343.00
0042-15	Oeding, Luke A.	PI	Mathematics and Statistics	\$78,343.00

2005-15	Oeding, Luke A.	PI	Mathematics and Statistics	\$560,349.00
0518-15	Rodger, Chris	PI	Mathematics and Statistics	\$7,000.00
0122-15	Shen, Wenxian	PI	Mathematics and Statistics	\$7,000.00
0230-15	Shen, Wenxian	PI	Mathematics and Statistics	\$88,237.00
	Zeng, Peng	COPI	Mathematics and Statistics	
0290-15	Zeng, Peng	COPI	Mathematics and Statistics	\$41,500.00
	Total Requested			\$3,564,748.00

Amount of New Grant Dollars in FY15 Physics FY 11-15



Extramural Research Grants with New Dollars Received in FY 15

Physics

PI NAME	PI/CO PI	DEPARTMENT	PROJECT TITLE	SPONSOR	AMOUNT
Dhar, Sarit	PI	Physics	The cooperative research initiative and CRI-SI02/4H- SIC interface optimization for next generation power MOSFETs	II-VI Foundation	\$95,000.00
Dhar, Sarit	PI	Physics	The cooperative research initiative and CRI-SI02/4H- SIC interface optimization for next generation power MOSFETs	II-VI Foundation	\$4,000.00
Dong, Jianjun A.	PI	Physics	Ab initio phonon models of lattice thermal conductivity of lower mantle minerals	NSF-National Science Foundation	\$70,215.00
Fogle, Michael R.	PI	Physics	Electron-driven correlated dynamics of complex systems	NSF-National Science Foundation	\$80,742.00
Fogle, Michael R.	PI	Physics	Electron-driven correlated dynamics of complex systems	NSF-National Science Foundation	\$2,000.00
Giordano, Nicholas J.	PI	Physics	Physics of wind instruments	NSF-National Science Foundation	\$290,492.00
Guazzotto, Luca	PI	Physics	Development of two fluid equilibrium and stability analysis in axisymmetric plasmas	DOE - United States Department of Energy	\$94,292.00
Hanson, James D.	PI	Physics	3D equilibrium reconstruction and MHD studies in stellarators	DOE - United States Department of Energy	\$100,000.00
Landers, Allen Lee	PI	Physics	Robotics and engineering education fostering the conceptual understanding of science	Alabama Dept. of Education - ALDoEd	\$18,647.20
Landers, Allen Lee	PI	Physics	Robotics and engineering education fostering the conceptual understanding of science	Alabama Dept. of Education - ALDoEd	\$49,726.00
Lin, Yu	PI	Physics	GEM: Mode conversion and kinetic alfven waves at the magnetopause and their effects in the magnetosphere	NSF-National Science Foundation	\$156,442.00
Lin, Yu	PI	Physics	A simulation study of mode conversion associated with kinetic alfven waves	DOE - United States Department of Energy	\$135,000.00
Liu, Kaijun	PI	Physics	Collaborative Research: An integrated study of fast magnetosonic waves in the radiation belts	NSF-National Science Foundation	\$80,148.00
Loch, Stuart David	PI	Physics	Atomic fine structure diagnostic and cooling transitions for far infrared and submillimeter observations	NASA - National Aeronautics and Space Administration Headquarters	\$154,611.00
Maurer, David A.	PI	Physics	MHD stability and equilibrium in a current-driven Stellarator-Tokamak hybrid	DOE - United States Department of Energy	\$540,000.00
Maurer, David A.	PI	Physics	Three dimensional equilibrium stability and its impact on edge transport and divertor performance in Wendelstein 7-	DOE - United States Department of Energy	\$132,039.00

Perez, Joseph D.	PI	Physics	TWINS mission operations and data analysis Phase E - Extended Versiion (FY 2014 - 2015)	SWRI - Southwest Research Institute	\$30,000.00
Perez, Joseph D.	PI	Physics	TWINS mission operations and data analysis Phase E - extended version (Fy 2014-15)	SWRI - Southwest Research Institute	\$35,000.00
Perez, Joseph D.	PI	Physics	TWINS mission operations and data analysis phase E - extended version (FY 2014-2015)	SWRI - Southwest Research Institute	\$5,000.00
Pindzola, Michael S.	PI	Physics	Few body dynamics of atomic and molecular systems	NSF-National Science Foundation	\$60,000.00
Thomas, Edward E.	PI	Physics	Support for the 14th workshop on the physics of dusty plasmas	DOE - United States Department of Energy	\$5,000.00
Thomas, Edward E.	PI	Physics	Physics of magnetized dusty plasmas	DOE - Office of Science	\$247,500.00
Thomas, Edward E.	PI	Physics	Physics of magnetized dusty plasmas	DOE - Office of Science	\$2,500.00
Thomas, Edward E.	PI	Physics	Dusty plasmas	California Institute of Technology-Jet Propulsion Laboratory	\$80,000.00
Wersinger, Jean-Marie	PI	Physics	Collaborative Research: CubeSat: Observing terrestrial gamma-ray flash (TGF) beams with a pair cubesats	NSF-National Science Foundation	\$473,403.00

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Physics Count

Physics Total
\$2,941,757.2

Physics Proposals Submitted FY 2015				
Proposal ID	PI/CoPI	Title	Department	Amount Requested
0088-15	Ahyi, Claude Ayayi	PI	Physics	\$24,956.00
2038-15	Ahyi, Claude Ayayi	COPI	Physics	\$210,000.00
0296-15	Ballance, Connor Peter	COPI	Physics	\$72,690.00
0151-15	Dhar, Sarit	PI	Physics	\$235,119.00
2571-15	Ennis, David	PI	Physics	\$535,872.00
0728-15	Fogle, Michael R.	COPI	Physics	\$296,077.00
2286-15	Fogle, Michael R.	PI	Physics	\$355,824.00
0022-15	Giordano, Nicholas J.	PI	Physics	\$104,101.00
1303-15	Guazzotto, Luca	PI	Physics	\$94,292.00
0930-15	Hanson, James D.	PI	Physics	\$100,000.00
0140-15	Kuroda, Marcelo	PI	Physics	\$65,106.00
1902-15	Landers, Allen Lee	PI	Physics	\$1,246,449.00

2399-15	Lin, Yu	PI	Physics	\$384,429.00
2289-15	Liu, Kaijun	PI	Physics	\$94,245.00
2396-15	Liu, Kaijun	COPI	Physics	\$454,129.00
2572-15	Liu, Kaijun	COPI	Physics	\$312,724.00
1994-15	Liu, Kaijun	PI	Physics	\$539,470.00
1071-15	Loch, Stuart David	PI	Physics	\$34,161.00
1055-15	Loch, Stuart David	COPI	Physics	\$86,066.00
0767-15	Maurer, David A.	PI	Physics	\$100,000.00
2093-15	Maurer, David A.	PI	Physics	\$2,373,202.00
1171-15	Maurer, David A.	PI	Physics	\$540,000.00
1320-15	Maurer, David A.	PI	Physics	\$132,039.00
2044-15	Min, Kyungguk	PI	Physics	\$328,903.00
1633-15	Oks, Evgueni (Eugene)	PI	Physics	\$144,506.00
1728-15	Perez, Joseph D.	PI	Physics	\$35,000.00

2211-15	Perez, Joseph D.	PI	Physics	\$150,000.00
0724-15	Perez, Joseph D.	PI	Physics	\$30,000.00
2052-15	Perez, Joseph D.	PI	Physics	\$225,573.00
2212-15	Perez, Joseph D.	PI	Physics	\$130,000.00
0145-15	Pindzola, Michael S.	PI	Physics	\$109,015.00
0298-15	Pindzola, Michael S.	COPI	Physics	\$96,426.00
0392-15	Thomas, Edward E.	PI	Physics	\$5,000.00
1301-15	Williams, John R.	COPI	Physics	\$154,351.09
	Total Requested			\$9,799,725.09

Amount of New Grant Dollars in FY15 Outreach FY 11-15

\$2,500,000

\$2,000,000

\$1,500,000

\$1,000,000

\$500,000

\$0

2011

2012

2013

2014

2015

\$499,111

\$1,954,296

\$2,258,089

\$2,223,665

\$536,694

■ Amount of New Grant Dollars in FY15

■ Amount of New Grant Dollars in FY15

Year	Amount of New Grant Dollars in FY15
2011	\$499,111
2012	\$1,954,296
2013	\$2,258,089
2014	\$2,223,665
2015	\$536,694

Extramural Research Grants Receiving New Dollars in FY 15
COSAM Outreach

PI NAME	PI/COPI	DEPARTMENT	PROJECT TITLE	SPONSOR	AMOUNT
Hickman, Elizabeth Powell	COPI	Alabama Math, Science, and Technology Initiative	TEAM-Math and AMSTI mathematics professional learning communities partnership	Alabama Dept. of Education - ALDoEd	\$31,688.20
Hickman, Elizabeth Powell	COPI	Alabama Math, Science, and Technology Initiative	TEAM-Math and AMSTI mathematics professional learning communities partnership	Alabama Dept. of Education - ALDoEd	\$5,397.60
		Alabama Math, Science, and Technology Initiative Count	2		
		Alabama Math, Science, and Technology Initiative Total			\$37,085.80
Ewald, Mary L.	PI	Sciences & Math - Admin	AMSTI lead teacher enhancement project	Alabama Commission on Higher Education-ACHE	\$65,000.00
Ewald, Mary L.	PI	Sciences & Math - Admin	Program Income for 21st Century Learning Center	Various-Miscellaneous	\$900.00
Ewald, Mary L.	COPI	Sciences & Math - Admin	Robotics and engineering education fostering the conceptual understanding of science	Alabama Dept. of Education - ALDoEd	\$49,726.00

Ewald, Mary L.	PI	Sciences & Math - Admin	Auburn University Alabama Science in Motion FY15	Alabama Dept. of Education - ALDoEd	\$360,735.00
Ewald, Mary L.	COPI	Sciences & Math - Admin	Robotics and engineering education fostering the conceptual understanding of science	Alabama Dept. of Education - ALDoEd	\$18,647.20
Ewald, Mary L.	PI	Sciences & Math - Admin	Program Income for 21st CCLC Grant	Various-Miscellaneous	\$4,600.00
		Sciences & Math - Admin Count	6		\$499,608.20
		Sciences & Math - Admin Total			
		Grand Total			\$536,694.00
		Grand Count	8		