

Regan Voit, Chair
Melvin Williams, Vice Chair
Lisa Main, Secretary



SmartState®
SC Centers of Economic Excellence

November 24, 2014

The Honorable Nikki R. Haley, Governor of the State of S.C.
The Honorable Richard Eckstrom, S.C. Comptroller General
The Honorable Curtis Loftis, State Treasurer of S.C.
The Honorable Hugh K. Leatherman, Sr., President *Pro Tempore* and Chairman, S.C. Senate Finance,
and Members, S.C. Senate
The Honorable W. Brian White, Chairman, S.C. House Ways & Means Committee
The Honorable James H. "Jay" Lucas, Speaker *Pro Tempore*, and Members, S.C. House of Representatives

Dear Members of the S.C. Budget & Control Board and Members of the S.C. General Assembly:

On behalf of the S.C. Centers of Economic Excellence Review Board, I am pleased to provide you with the *SmartState® Program 2013-2014 Annual Report* and the *2013-2014 SmartState Program Audit*. We are proud to share with you the program's accomplishments and to report again this year an unqualified audit with no material findings. These reports highlight the tremendous success of SmartState.

To date, the SmartState Review Board has approved 51 research centers in areas such as biomedicine, pharmaceutical research, automotive engineering and transportation, energy, nanotechnology, information science, and advanced materials. Across these centers, 88 SmartState endowed chair positions have been approved, and 46 appointments have been made and announced. As envisioned by the General Assembly in 2002, SmartState is delivering significant returns on the state's investment on many fronts such as sponsored research, corporate partnerships, company relocations and startups, increased jobs in our state, and opportunities for young people at our universities, in industry and as entrepreneurs. According to a recent study by the University of S.C.'s Moore School of Business, SmartState is responsible for helping to create and support approximately 10,789 jobs in our state, which are associated with nearly \$1.5 billion in total economic activity and \$615 million in labor income for South Carolinians that would not exist otherwise. The economic activity is more than eight times the state's total investment of \$180 million in lottery funds from FY 2003 to FY 2008. Of the total 10,789 jobs, 4,880 (45%) are high-paying knowledge economy jobs created directly through the program with an average salary of \$78,393 or more than twice the average salary among all jobs in our state.

The SmartState annual program report and audit are being transmitted to the members of the S.C. Budget & Control Board, and by statute, being made available to members of the S.C. General Assembly in electronic format through the S.C. Legislative Services Agency. You will also find a copy of the annual report and other program information available at www.smartstatesc.org. Should you desire a hardcopy annual report, please contact Dr. Argentini Anderson at the S.C. Commission on Higher Education at aanderson@che.sc.gov or 803.737.2276.

The SmartState Review Board trusts the enclosed reports will be helpful to you in better understanding this important program and looks forward to working with you in the coming year and as the future of SmartState is considered. As always, we extend our appreciation and thanks to each of you for the work you accomplish on behalf of higher education and academic research and for the betterment of South Carolina and its citizens.

Sincerely,

Regan Voit
Chair, SmartState Review Board

cc: Ms. Marcia Adams, Executive Director, S.C. Budget and Control Board
Dr. Richard Sutton, Executive Director, S. C. Commission on Higher Education
Members, SmartState Review Board

SmartState®

SC Centers of Economic Excellence

2013-2014 : ANNUAL REPORT



 **Invest**
IN SOUTH CAROLINA

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On the Cover: Matt Byrd, a Greenville, South Carolina native and senior in electrical engineering at Clemson University.

Mission



The South Carolina SmartState® Program serves the public interest by creating incentives for the state's research universities, in cooperation with other institutions of higher education in the state, to raise capital from non-state sources to fund endowments for specialized research professorships. These professorships in turn serve as the nucleus for unique, university-based research centers which cultivate critical, public-private industrial partnerships, expand the state's knowledge base, create well-paying jobs, enhance economic opportunities, and improve the quality of life for the people of South Carolina.

INTRODUCTION BY

Regan Voit, Chair

WHEN THE SOUTH CAROLINA General Assembly created the SmartState Program in 2002, the state made an unprecedented commitment to investing in South Carolina's future. The groundbreaking program was designed to attract endowed chairs in areas of global importance to our state and whose research would bring our universities together with businesses in search of innovation, collaboration, and talented, well-prepared employees.

A decade later, the General Assembly's investment in South Carolina is delivering significant return on investment on many fronts such as sponsored research, corporate partnerships, company relocations and startups, and one thing close to my heart, unprecedented opportunities for young people at our universities, in industry and as entrepreneurs.

For years, South Carolina's best and brightest high school students would leave to attend out-of-state universities. Now, young people like Matt Byrd, a Greenville native featured on the cover of this report, are choosing to remain in state for college. Matt, who is a senior in electrical engineering at Clemson University, was a featured speaker at this year's Institute of Electrical and Electronics Engineers (IEEE) Photonics Conference in San Diego and was the lead author on an article published in the IEEE Photonics Technology Letters journal. What an honor for this young man and what a testament to the photonics program at Clemson, an area of critical importance to our nation.

Our SmartState Endowed Chairs have proven to be incredible catalysts in many different arenas. Dr. Igor Roninson of the University of South Carolina

(USC) played a pivotal role in landing an \$11.3 million federal grant to create a research center dedicated to finding the next generation of drugs to treat everything from diabetes to cancer. Dr. Les Lenert of the Medical University of South Carolina (MUSC) is directing the implementation of a statewide Clinical Data Warehouse that links researchers and clinicians to data collected from the state's four largest health systems. These data are critical to identifying the best treatments for illness and disease and ultimately transforming public health.

Dr. Zoran Filipi of Clemson University has developed new collaborative relationships within the automotive industry in South Carolina. He has initiated partnerships with BMW on specialized fuel formulations for cold start; EcoDual in Beaufort, S.C., on dual-fuel systems for conversion of heavy duty engines to natural gas; and Bosch-Anderson on innovative EGR sensing for internal combustion engine controls. Thanks to Dr. Filipi and the other endowed chairs of Clemson University International Center for Automotive Research (CU-ICAR), South Carolina now plays a major role in our country's automotive industry. Details of these SmartState success stories are in this report.

In closing, I would like to recognize our two new university presidents, Dr. James Clements at Clemson and Dr. David Cole at MUSC. We are privileged to have these fine leaders, along with USC President Harris Pastides, leading our research institutions. Now, I invite you to turn the pages and see how the investment in the SmartState Program is paying huge dividends for South Carolina. You won't be disappointed!



Regan Voit, Chair
SmartState Review Board

The SmartState Program does not receive taxpayer dollars to fund economic development-related initiatives to benefit the state; it is funded through revenue generated by the South Carolina Education Lottery, which is then matched dollar-for-dollar by non-state businesses and foundations.

REVIEW BOARD

The SmartState Review Board consists of eleven members who serve three-year terms. Three are appointed by the Governor, three by the President Pro Tempore of the State Senate, three by the Speaker of the House of Representatives, one by the Senate

Finance Committee, and one by the Chairman of the House Ways and Means Committee. The Review Board oversees operations of the SmartState Program. The presidents of the three research universities serve as ex-officio, non-voting board members.

Regan Voit, Chair



Appointed by
Chairman of the
Senate Finance
Committee

Melvin Williams, Vice Chair



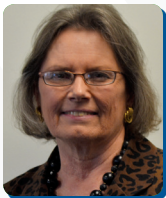
Appointed by
President Pro
Tempore of the
Senate

Michael Couick



Appointed by
President Pro
Tempore of the
Senate

Roberta Bankhead Wood



Appointed by the
Chairman of House
Ways and Means
Committee

Lisa Main



Appointed by Speaker
of the House

Robert W. Pearce, Jr.



Appointed by Speaker
of the House

Patrick W. Turner



Appointed by
President Pro
Tempore of the
Senate

Patricia E. Wilson



Appointed by Speaker
of the House

South Carolina's Senior Research Universities

THE SMARTSTATE PROGRAM funds Centers of Economic Excellence at South Carolina's three senior research universities: Clemson University, the Medical University of South Carolina (MUSC), and the University of South Carolina (USC). Other state universities such as South Carolina State University and the College of Charleston are included as collaborative research partners.

In 2002, members of the South Carolina General Assembly recognized the critical role research universities play in advancing innovation, creating economic and educational opportunities, and improving overall quality of life for the state's citizens when it acted with foresight and an eye to the future, passing the enabling legislation of the SmartState Program. Today, other states look to South Carolina's SmartState Program as the model of university-based public-private partnerships that foster innovation, launch companies, and create jobs.

Clemson University is home to more than 26,000 students. Located in South Carolina's Upstate region, Clemson offers approximately 80 undergraduate and 110 graduate programs. Ranked as the 25th best national public university by *U.S. News & World Report*, Clemson is a vibrant student-centered community that thrives on leadership, collaboration, and a winning spirit in academics, athletics and life. To become one of the country's top-tier research universities,

Clemson has combined the scientific and technological horsepower of a major research university with the academic and social environment of a small college. CU-ICAR is a world model for university and business research partnerships.

MUSC has served the citizens of South Carolina since 1824. MUSC has expanded from a small private college for the training of physicians to a state university with a medical center and six colleges for the education of a broad range of health professionals, biomedical scientists, and other health-related personnel. MUSC has colleges in medicine, nursing, dental medicine, pharmacy, health professions, and graduate studies. MUSC Health is among the state's largest and most innovative health systems.

Established in 1805, USC is home to more than 200 years of history and tradition, with more than 46,000 students at its eight campuses across the state. The main campus in Columbia offers 324 degree programs through its 14 colleges and schools, which include medical schools in Columbia and Greenville, and a law school in Columbia. The Sonoco International Business Department within the Darla Moore School of Business offers an undergraduate international business major that is consistently ranked as #1 by *U.S. News & World Report*. USC is one of only 63 public universities listed by the Carnegie Foundation in the highest tier of research institutions in the United States. 🍃





“ A long-term investment in higher education helps keep South Carolina and its businesses competitive in a 21st century economy that increasingly relies on brain power to stay a step ahead. The beauty of the SmartState Program is that it brings together public and private dollars to maximize the impact of our investment. With the program’s help, we’re able to attract and retain world-class faculty members and students. Their research in key areas helps develop new technologies, form new companies, and create high-paying jobs. It all comes together to have a global impact for the common good, while improving the standard of living here at home in South Carolina.”

— **James P. Clements, Ph.D.**

President
Clemson University



“ The SmartStart Program has been an essential research and innovation catalyst at MUSC. The endowed chair researchers who have been hired through the program have generated extensive extramural funding, facilitated exciting collaborations with industry partners and our fellow South Carolina research universities, and helped develop significant inventions, intellectual property, and advancements in healthcare technology. SmartState is fundamental to MUSC addressing the most compelling health challenges through innovation, while simultaneously recruiting critical talent to South Carolina to advance its economy.”

— **David J. Cole, M.D.**

President
Medical University of South Carolina



“ The establishment of the SmartState Program by the South Carolina General Assembly has proven to be a smart investment. Since 2002, the SmartState Program has attracted more than \$1.5 billion in investments from businesses and foundations while also creating more than 10,000 new jobs. In addition, SmartState attracts prestigious corporate partners such as BMW, Boeing, GM, SCANA, Fluor, and more. I am particularly proud of the University of South Carolina’s 18 SmartState Endowed Chairs—world-class research scientists and engineers—who are making a difference in economic development, entrepreneurship, education, and in the quality of life for all South Carolinians.”

— **Harris Pastides, Ph.D.**

President
University of South Carolina



“A learning health system is like a fractal; at every level, from the individual to society at large, there are parallels and similarities. We’ve got to find the similarities and use them to create systems to improve health.”

LES LENERT, M.D., M.S., F.A.C.M.I.
ENDOWED CHAIR,
MEDICAL INFORMATICS
SMARTSTATE CENTER
FOR HEALTHCARE QUALITY

Creating a Learning Health System in South Carolina

Dr. Les Lenert's eyes light up when asked about South Carolina's newest research asset, a statewide clinical data warehouse that links the state's three research-intensive universities with four major health systems, and merges databases from public health agencies and insurance companies.

AS AN INTERNATIONAL EXPERT in bioinformatics, Lenert sees the clinical data warehouse—an asset of the SmartState Center for Healthcare Quality and funded largely by The Duke Endowment—as an unprecedented opportunity to use big data to make South Carolina one of the healthiest states in the country rather than one of the least healthy.

“What we are doing is creating a learning health system in South Carolina. Using data we collect from patient encounters from throughout the state, we can drive improvement and innovation, identify the best treatment modalities, standardize care for overall population health, and create new models of healthcare delivery,” Lenert explained.

The clinical data warehouse was the brainchild of Jay Moskowitz, a former SmartState Endowed Chair and retired CEO of Health Sciences South Carolina,

who envisioned a shared statewide informatics system to collect and analyze data for clinical and research purposes. It took eight years to bring the dream to reality: the clinical data warehouse went live in 2014 and now connects scientists and clinicians to de-identified patient data from more than 3.6 million individuals. South Carolina researchers are now studying pediatric pneumonia, surgical safety and pre-hospital cardiac care.

The clinical data warehouse will soon become a more robust tool as Health Sciences South Carolina and CliniWorks have agreed to create a centralized Natural Language Processing system capable of converting unstructured data into mineable data. The South Carolina Research Authority (SCRA) and the Israeli Industry Center facilitated the agreement.

The power of big data analytics also helped Lenert and colleague Dr. Louis Frey secure a \$2.5 million National Institutes of Health grant to create a system for physicians based on the same technologies used by companies like Amazon.com to recommend products. The concept is intriguing. Whereas Amazon.com automatically suggests products based on the shopper's past selection, Lenert and Frey's system will suggest treatments to physicians based on how patients with the same symptoms were effectively treated in the past.

“This is a powerful confluence of information to improve health care and public health in South Carolina. Studying a patient population in real time is an unimaginable concept for most people, but it's exactly what we're doing,” said Lenert, with a smile. ▼



“ Last August after the commencement ceremony, I was surrounded by Clemson Automotive Engineering graduates who shared their next steps. The answers were: BMW, Chrysler, Bosch, Cummins, Proterra, and other powerhouses.”

ZORAN FILIPI, Ph.D.
TIMKIN ENDOWED CHAIR
SMARTSTATE CENTER
FOR AUTOMOTIVE DESIGN
& ENGINEERING



State's Auto Engineering Grads In High Demand

The future of transportation will be shaped by the ability to address major challenges related to energy security, environmental impact, global market forces, and consumer adoption patterns. Young people ready to solve these issues and lead companies is key.

DR. ZORAN FILIPI, the SmartState Timken Endowed Chair leading the SmartState Center for Automotive Design and Development, is passionate about contributing to the future through research focused on innovative powertrain concepts. He is equally passionate about providing opportunities for students to experience cutting edge research, and prepare them for leadership roles in the automotive industry.

"The whole automotive industry is changing. By 2025, cars will be transformed by impending regulation, societal expectations and market forces. My students and I are focusing on innovative research topics that will not only allow meeting fuel efficiency goals, but also minimize the cost to accelerate technology deployment. Our approach pursues both advanced internal combustion engine concepts and electrified propulsion systems," Filipi explained.

Since moving to Clemson University from the

University of Michigan in 2012, Dr. Filipi has made deliberate efforts to develop new collaborative relationships within the automotive industry in South Carolina. Most notably, his group initiated partnerships with BMW on specialized fuel formulations for cold start; EcoDual in Beaufort, S.C., on dual-fuel systems for conversion of heavy duty engines to natural gas; and Bosch-Anderson on innovative EGR sensing for internal combustion engine controls.

Many of Filipi's industry-focused projects are established through basic research funded by the federal government, most notably a \$1 million project on Thermal Barrier Coating for Clean Combustion Engines supported by the National Science Foundation/Department of Energy, and Department of Defense-funded efforts on hybrid electric and hydraulic hybrid powertrains.

Clemson's world-class reputation in automotive engineering is validated through significant collaborative efforts funded by Fiat Chrysler Automobiles (FCA), General Motors R&D and Johnson Controls Power Solutions. The partnership with FCA alone has resulted in four research projects totaling \$1.3 million.

Research has created outstanding opportunities for graduate students, and the automotive industry has discovered Clemson as a "go-to" place for talent. Said Filipi, "We're educating the next generation of industry leaders who are ready to tackle any technological challenge. Our graduates are likely to influence future decisions about locations of new production plants or engineering centers. It fills my heart with joy to see these young folks spread their wings." ▼

SMART OUTREACH: The Science Café

A Conversation with Meghan Hughes Hickman, Executive Director of EngenuitySC

SCIENCE CAFÉ is the only place in South Carolina where for the price of a beverage, anyone can come to explore the latest trends in science and technology compliments of SmartState Program Endowed Chairs. Science Café is a forum for the exchange of knowledge, discussion, and debate in a safe, fun environment. EngenuitySC and the SmartState Program have partnered on this important community outreach program with the goal of enlightening and inspiring people to take an interest in science.

In 2014, six SmartState Endowed Chairs from Clemson, MUSC, and USC were the featured speakers at Science Café, addressing topics ranging from nuclear energy and nanoscience to automotive engineering and ADD and autism. More than 500 people attended the events and countless others were exposed to the SmartState Program via The State newspaper, ETV's South Carolina Business Review, WOLO, The Free Times, and a new podcast series on EngenuitySC's website.

Q. What is Science Café?

A. The idea behind Science Café actually started in Boston, but became so popular, there are now Science Cafés across the country. EngenuitySC and a USC professor started Science Café in Columbia in 2007 as a way to create awareness and dialogue around the research being done at USC. Science Café has grown from a small crowd of mainly USC

professors to a highly popular event for people from all walks of life.

Q. When did the SmartState Program get involved?

A. We formed a relationship with SmartState Program in 2012. Our motivation was simple: to elevate awareness of the high-level intellectual talent who serve as SmartState Endowed Chairs. Science Café and SmartState is a perfect match!

Q. What makes Science Café successful?

A. The public is invited to attend and the format is casual and engaging. We meet at Speakeasy, a pub in Five Points, which provides a comfortable environment where people can get a beverage and relax. The SmartState Endowed Chairs speak with our guests, not at them. Guests are encouraged to ask questions. The endowed chairs like it because they don't often get to interact with the public and the public likes having informal interaction with the endowed chairs.

Q. Have there been any memorable moments?

A. My favorite element of Science Café is that each one is unique and unpredictable—the speaker, the topic, the audience. We host SmartState Endowed Chairs from USC, MUSC and Clemson; they are free to discuss their research and projects, and sometimes the debates get lively. That's the exact interaction we hope for. One Science Café was on autism so it attracted a lot of parents. Another on nanoscience attracted an entirely different crowd. The discussions are very organic and everyone walks away with something they didn't know when they arrived.

“Where else can the public interact with the incredibly brilliant minds of the SmartState Endowed Chairs? Science Café is a tremendous opportunity for South Carolinians and the endowed chairs to meet and exchange ideas.”

MEGHAN HUGHES HICKMAN
EXECUTIVE DIRECTOR
ENGENUITYSC



Q. What's ahead for next year? Any changes?

A. If it's not broken, why fix it? Everyone loves the format. We've confirmed all eight of the SmartState speakers for 2015 and we're thrilled with the diverse line-up. The only change we'd like to see is for Greenville and Charleston to join the Science Café fun. We've heard from folks who are interested in partnering with us and we'd love to help develop other, local Science Cafés.

Q. Are you a science person?

A. (Laughs) I am now! The beauty of Science Café is that you can come as you are. No background, expertise, or knowledge base is required. All we ask is that you have a genuine intellectual curiosity and we'll do the rest. I appreciate that I'm always learning something new! 💙

SCIENCE CAFE



“The U.S. government will award more than \$200 million to create an Integrated Photonics Manufacturing Institute that will bring together universities, industry, and government to advance this critical industry. Thanks to SmartState’s investment, Clemson will be highly competitive for this prestigious award.”

ERIC JOHNSON, Ph.D.
PALMETTONET ENDOWED CHAIR
IN OPTOELECTRONICS
SMARTSTATE CENTER
FOR OPTOELECTRONICS

South Carolina at the Forefront of Photonics

The U.S. government's announcement in October that it plans to create a Photonics Institute for Manufacturing Innovation and award more than \$200 million in public and private investment was music to the ears of Clemson University's Dr. Eric Johnson.

DR. ERIC JOHNSON, WHO HOLDS a SmartState endowed chair in Optoelectronics, has dedicated his career to optics and photonics research (he holds 13 patents), and manufacturing. He now leads one of the only university-based photonics programs and the SmartState Center for Optoelectronics.

Optics and photonics are the science and application of light, and have led to technologies that form the infrastructure of many U.S. industries. Photonics technologies enable nearly every commercial sector from advanced manufacturing and information technology, communications and medicine, aerospace and national defense. BMW is a major photonics proponent; the German carmaker incorporates an array of optical sensors in its cars and energy-saving lasers in headlights.

Government investment in U.S. photonics research and manufacturing is designed to fuel business growth and job creation, explained Johnson. "The Photonics Institute for Manufacturing Innovation is expected to bring industry, universities, colleges, federal agencies,

and states together to accelerate innovation in electronics and photonics, industries the United States has traditionally led, but is now facing global competition. The government wants to bridge the gap between basic research and product development, help companies access cutting edge capabilities and equipment, and create an environment to educate and train students and workers in advanced manufacturing skills."

Johnson and colleagues at the Center for Optical Materials Science and Engineering Technologies (COMSET) believe Clemson is well positioned to play a leading role in the Photonics Institute for Manufacturing Innovation due in part to the SmartState Program. COMSET is home to the nation's premiere academic laboratory for specialty optical fiber fabrication and recently added a microfabrication facility for photonic chip fabrication, expanding its capabilities.

"Clemson is unique because we're focused on materials and manufacturing and not just basic research — things important to the federal competition. Our students get experience in theory, commercially relevant research and manufacturing — another advantage," said Johnson.

This means tremendous opportunities for Clemson students, many of whom are from South Carolina. Those earning doctorates are in high demand in industry and academia, commanding annual salaries in excess of \$100,000. Undergraduate students are also positioned for well-paying jobs and graduate school.

"Because of SmartState and other investments in Clemson's optoelectronics and photonics program, we're keeping many of the brightest student minds in state. They are becoming the engineers, scientists, and entrepreneurs South Carolina and the nation needs to be world leaders. That's gratifying," Johnson said. ▼

SmartState Program Return on Investment

The primary mission of the SmartState Program is to generate high-skilled, high-wage jobs in South Carolina.

THROUGH ESTABLISHING RESEARCH

centers that expand the state's knowledge base, create public-private partnerships, support startup firms, and help retain highly talented workers, the SmartState Program actively supports the ongoing development of the knowledge economy—and jobs in the knowledge economy are among the highest paid of all industries in South Carolina.

In general, professions within the knowledge economy are highly technical and typically require extensive academic training in mathematics and science as well as the ability for complex problem solving. Tasks are often both theoretical and practical, combining the creative skills necessary for innovation and technological development with the practical knowledge of commercializing new ideas, which is what leads to regional economic growth and development. The intellectual talents required for jobs in these professions are highly sought after across the world, and regions with high concentrations of these professions generate enormous human capital resources and knowledge spillover effects.

As of 2014, the SmartState Program is responsible for helping to create and support approximately 10,789 jobs in South Carolina, which are associated with nearly \$1.5 billion in economic activity and \$615 million in labor income that would not exist otherwise for South Carolinians. Approximately 4,880 (45 percent) of these

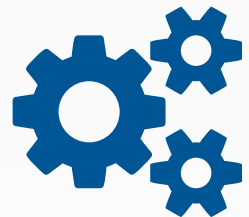
positions are knowledge economy jobs created directly through the SmartState Program, with the remaining 5,909 (55 percent) arising from additional spending activity generated through the economic multiplier effect.

The specific employment multiplier associated with these estimates is 2.2—for every 10 knowledge economy jobs directly created through the SmartState Program, an additional 12 jobs are created elsewhere in South Carolina. This multiplier effect is above the state average; that is, each new job created through the SmartState Program increases total South Carolina employment by more than it would if that job had been created in another industry of comparable size.

The average annual salary associated with a SmartState job in the knowledge economy is \$78,393. This is more than twice the average annual salary among all jobs in South Carolina. When examining the salaries of all jobs associated with the SmartState Program, including those created through the economic multiplier effect—the average annual salary is estimated to be \$56,927. This dollar amount is approximately 42 percent higher than the average annual salary among all South Carolina jobs.

Two key drivers for economic growth and development in the 21st century are innovation and technological development.

The SmartState Program creates and supports program centers designed specifically to encourage both of these activities through investments in research and development, startup companies, company recruitment, and retaining talented alumni. Ultimately, it is an ongoing expansion of the knowledge economy that will create additional high-wage, high-skilled jobs for South Carolinians — and the SmartState Program has clearly become a state leader in these efforts across the state.



“ Though job creation is critically important for economic growth, both the quality and quantity of jobs matter. Since its inception in 2002, the SmartState Program has generated both—more than 10,000 total jobs with annual salaries that are significantly above the state average.”

DR. JOSEPH VON NESSEN

RESEARCH ECONOMIST, MOORE SCHOOL OF BUSINESS, UNIVERSITY OF SOUTH CAROLINA

SmartState Program by the Numbers



¹ Industry-focused research is conducted in six areas of global importance: Advanced Materials and Nanotechnology, Automotive and Transportation, Biomedical, Energy, Information Science, and Pharmaceutical.

² Includes \$180 million from the State Education Lottery appropriations and \$17.6 million accrued interest from SmartState Program endowment.

³ The figures reported are from the November 2014 Economic Impact of the SmartState Program analysis conducted by the Darla Moore School of Business. Of the total 10,789 jobs, 4,880 are knowledge economy jobs created directly through the SmartState program including 568 SmartState Personnel; 1,208 Start-up Company and Corporate Relocation Personnel; 21 Alumni placed with in-state employers; and 3,083 employed through Extramural Research Funding. The remaining 5,909 jobs are indirect employment arising from the economic multiplier effect. For more information about the economic impact analysis, see page 14.

⁴ See page 16 for a listing of investors, start-ups and corporate relocations.

INVESTORS, START-UPS, AND CORPORATE RELOCATIONS IN SC

CORPORATE AND ORGANIZATIONAL INVESTORS

More than three dozen companies have invested \$500,000 or more in the SmartState Program.

- » Abney Foundation
- » BASF
- » Bank of America Foundation
- » Biomass Gas & Electric
- » BlueCross BlueShield Foundation of SC
- » BMW
- » Comporium Group
- » Daniel Island Company
- » Dialysis Clinics, Inc.
- » Duke Energy Foundation
- » Electric Cooperatives of South Carolina
- » Fluor Corporation
- » Force Protection Industries
- » General Atomics
- » George B. Sibert Annuity
- » GlaxoSmithKline
- » Greenville Hospital System
- » Health Sciences South Carolina
- » J.E. Sirrine Foundation
- » Kellogg Foundation
- » Kentwool
- » Michelin
- » Okuma
- » Palmetto Health
- » PalmettoNet
- » Research to Prevent Blindness
- » Robert Wood Johnson Foundation
- » Samuel Freeman / Donaldson Charitable Trust
- » Santee Cooper
- » Smith & Nephew
- » Spartanburg Regional Healthcare System
- » The Duke Endowment
- » The Spaulding Paolozzi Foundation
- » Timken
- » Toyota
- » Westinghouse

START-UP COMPANIES

Start-up companies that were founded as a result of research at USC, MUSC, and Clemson University:

- » Advanced Photonic Crystals
- » Cephos
- » Fibro Therapeutics, Inc.
- » GeoMat, LLC
- » Hydrogen Hybrid Mobility, LLC
- » ImmoMod, Inc.
- » MagAssemble, LLC
- » MicroVide
- » MitoChem Therapeutics, LLC
- » NextGenEn, Inc.
- » NXT
- » Palmetto Fuel Cell Technologies, LLC
- » Parallel Permeation, Inc.
- » Patient Guided Health Solutions, LLC
- » Perfect Mixing, LLC
- » Protara, LLC
- » SAGE Energy Solutions
- » SchnellGen
- » SemiAllogen, Inc
- » SimTunes
- » Smart Innovations, LLC
- » South Carolina Science Solutions, LLC
- » Specialty Custom Fibers, Inc.
- » Tetramer Technologies
- » Vortex Biotechnology

CORPORATE RELOCATIONS

Companies that have relocated to South Carolina to take advantage of the expertise, resources, and graduates in the SmartState Program:

- » American Titanium Manufacturing
- » American Titanium Works Technology Center
- » BMW Information Technology Research Center (ITRC)
- » CADFEM U.S.*
- » Clean Energy
- » COE Optics
- » Computech*
- » Cooliemon* Technologies*
- » DreamWeaver*
- » Environmental and Health Inc. (EHG)
- » Esys Automation
- » Fields Group, LLC.*
- » Focus Chemicals*
- » Greenway Energy, LLC
- » Innoventure
- » Intec U.S. Inc.
- » JTEKT Technology Center
- » Mallet Technology*
- » Michelin
- » Michelin Incubator
- » Mumford Industries*
- » OmniSource
- » Proterra, Inc.
- » Roding*
- » Sage Automotive Interiors*
- » Senex Biotechnonology, Inc.
- » Simpack, Inc.
- » ThermoPur Technologies*
- » Toho Tenax*
- » Tigges*
- » Trulite

* In May 2012, CU-ICAR opened the doors to the Center for Emerging Technologies (CET) facility, its first multi-tenant building. CET provides office, administrative, and laboratory space for transportation, technology, and energy sectors. These companies have positioned themselves on the CU-ICAR campus to be close to the SmartState Endowed Chairs and their research teams.

SMART OUTREACH:

Governor's School for Science & Mathematics

EACH YEAR, SMARTSTATE Endowed Chairs are partnered with students from South Carolina's Governor's School for Science & Mathematics in Hartsville to introduce them to "real" research.

Mentored students participate in the chairs' ongoing research, applying what they have learned in the classroom and gaining valuable insight into the exciting work a research-based career offers.

GSSM STUDENT

Elizabeth Grant

Class of 2015

Aiken, SC

SMARTSTATE MENTOR

Dr. Patrick Woster

Cancer Drug Discovery

MUSC

AS AN AMBITIOUS high school student, I sought to challenge myself, which along with the ability to conduct summer research, led me to apply to the South Carolina Governor's School of Science and Mathematics (GSSM). The support of my family, along with my initiative to make them proud, motivates me in school. I possessed an interest in science and mathematics throughout my education, but was unsure of what area I desired to pursue. Over the past few years, I have realized my interest in the automobile industry. I have the intent to major in engineering, with a focus in mechanical engineering. After taking years of taking STEM-related courses, I also developed an interest in research.

During my research internship this past summer at the Medical University of South Carolina, I had the opportunity to work in the lab of Dr. Patrick Woster at the Medical University of South Carolina. This experience gave me a real-life sense of science—something I had yet to experience in high school labs. I discovered the processes of research and experi-

mentation to be both interesting and patience testing. The failures I experienced in the lab led to further experimentation and success. The opportunity to conduct my own experiment with the help of skilled researchers led me to decide to continue researching in the future. Science

is always growing and changing and I would like to experience this growth and be part of those changes.



"A solid educational foundation in STEM-related fields will be key for students interested in pursuing and obtaining the best jobs in the future. STEM courses help not only to teach students what they should be learning today for their future careers, but how to learn and create new knowledge for the future."

SCOTT J. MASON, PH.D.

CHAIR, SMARTSTATE COUNCIL OF CHAIRS
FLUOR ENDOWED CHAIR IN SUPPLY CHAIN
OPTIMIZATION AND LOGISTICS
CLEMSON UNIVERSITY

GSSM STUDENT

Hansen Mou

Class of 2015

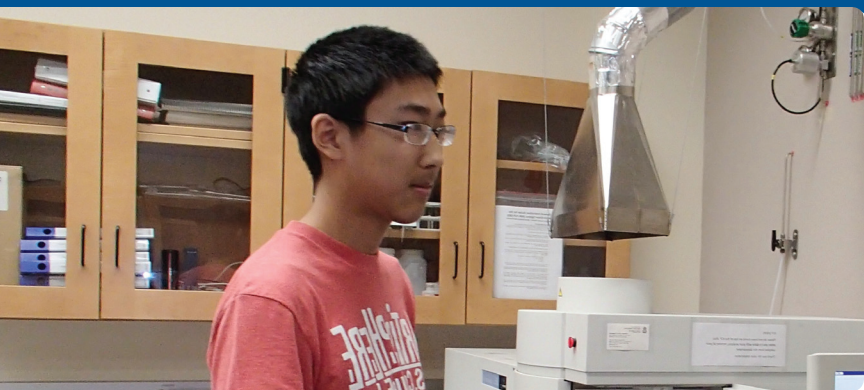
Greer, SC

SMARTSTATE MENTOR

Dr. John Regalbuto

Catalysis for Renewable Fuels

USC



IN 2012, I disliked going to school. It was monotonous, easy, and it felt pointless. Every day, I went to the same classes and did the same things—I wasn't being challenged and I was sick of it. When I heard about the South Carolina Governor's School for Science & Mathematics (GSSM), I decided to apply right away. I did that partly because I thought the

English courses would be easier (which they haven't been!), but mostly because I wanted to study math and science more in-depth than I could have at my old school. Math and science appeal to me because they have so many applications in life and they can be used to solve the world's pressing problems.

Now that I am at GSSM, I am much more motivated to work hard in school. I've been able to study subjects such as organic chemistry and linear algebra; subjects that I had never even heard of before coming to GSSM. I also had the opportunity to conduct summer research under the mentorship of Dr. John Regalbuto, at the University of South Carolina, with whom I studied strong electrostatic absorption. This is a relatively new method of building catalysts that use the charged functional groups on a support's surface to adsorb noble metal ion precursors. This allowed for monolayer catalysts of small particle size, which increased the efficiency of the catalyst. I had the chance to look at the optimal conditions for pairing certain supports and functional groups. I thought that work was very interesting and, thanks to that experience, I've developed an interest in chemical engineering, and I hope to major in that field in college.

GSSM STUDENT

Wil Carpenter

Class of 2015

Lake Wylie, SC

SMARTSTATE MENTOR

Dr. Jamie Lead

Environmental Nanoscience

and Risk

USC

I DECIDED TO COME to the Governor's School for Science & Mathematics (GSSM) because I was not feeling challenged at my old high school. I felt that GSSM offered more difficult classes. I also wanted to be around students with similar interests. Engineering is my top interest because I want to be at the forefront of technological innovation. Engineers solve the world's greatest problems, and they help millions of people by improving lives all around the world. A career in engineering would allow me to design new things, and allow me to apply physics and math to solve problems.



Specifically, I am interested in pursuing aerospace engineering.

This summer, I conducted research with Dr. Jamie Lead at the University of South Carolina. My research focused on

gold-silver core-shell nanoparticles and the impact that the thickness of the gold outer layer has on the dissolution of the silver seed particle. This research will contribute to the development of less toxic nanoparticles. It was my first research experience, and I wanted to make sure I did everything right. I am now motivated by myself and my desire to do well.

“ Educating South Carolina's best and brightest high school students with an eye to the state's economic future has always been at the heart of the Governors School for Science & Mathematics.”

ROBERT FLETCHER
FOUNDING DIRECTOR
BLUECROSS BLUESHIELD OF SC ECONOMICS
& FINANCE INSTITUTE
GOVERNOR'S SCHOOL FOR SCIENCE & MATHEMATICS

SINCE THE BEGINNING of time, high school students have pondered whether or not they will ever use math and science in their daily lives. The answer, of course, is yes; many careers require a solid foundation in science, technology, engineering and math (STEM). However, what's not often addressed is the practical, real-world application of STEM education and its natural alignment with business.


In 2011, the Governor's School of Science & Mathematics in Hartsville launched the Economics & Finance Institute with a generous donation from BlueCross BlueShield of South Carolina. Under the leadership of its director, Clemson electrical engineer, Harvard MBA and entrepreneur Robert Fletcher, the Economics & Finance Institute teaches students the fundamental of creating and running a business using their knowledge of science and math as the foundation.

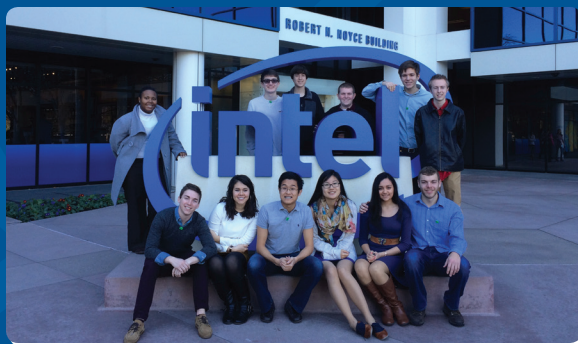
Some of the innovative aspects of the Institute include SmartChat, a speaker series featuring CEOs



and entrepreneurs with science and technology backgrounds; Team-Building Challenge Day, a campus-wide event where students gain experience in risk-taking, decision-making and collaboration; and Technologies Ventures, a hands-on course designed to expose students to the fundamentals of starting a business from an emerging technology, which is based on an engineering course at Stanford University.

The Institute also offers Tech Trek, a field study program that introduces GSSM students to leaders, often GSSM alumni, working in the fields of finance and technology entrepreneurship in South Carolina, Silicon Valley, New York City, Boston, and more. In January 2014, a group of GSSM students traveled to Silicon Valley in California and visited the headquarters of Apple, Google and Intel. (See photos.)

“Too often we ask students to choose between a business major and a technical major, which is a false choice—they can do both,” said Fletcher. “





UNIVERSITY OF
SOUTH CAROLINA

“ *Very few engineers have jobs where they will spend the next forty years in a lab. Business doesn't work that way; engineers talk to customers, sell ideas and run companies. Universities need to change how and what we're teaching engineers.*”

JOCHEN LAUTERBACH, Ph.D.

ENDOWED CHAIR
SMARTSTATE CENTER
FOR STRATEGIC APPROACHES
TO THE GENERATION
OF ELECTRICITY



Educating Engineers to be Entrepreneurs

On the ABC Emmy award-winning reality show *Shark Tank*, aspiring entrepreneurs pitch their startup businesses to potential investors. Ideas range from ingenious to silly, but the bottom line is that the dream of hitting it big is very much alive as witnessed by the more than \$40 million in deals done on *Shark Tank*.

UNIVERSITY OF SOUTH CAROLINA (USC) SmartState Endowed Chair Dr. Jochen Lauterbach is living his own version of *Shark Tank*, and in the process, turning future engineers into entrepreneurs. In 2014, Lauterbach helped secure a \$3 million National Science Foundation (NSF) IGERT — short for Integrative Graduate Education and Research Traineeship — and also won an NSF I-CORPS grant to prepare scientists and engineers to extend their focus beyond the laboratory and into the business world. He and his students have also launched a startup company, which incidentally, won \$15,000 in USC's own version of *Shark Tank* called Proving Ground.

Lauterbach, a chemical engineer who applies his expertise to solving industrial problems, is passionate about leading this change. The NSF IGERT

grant provides funding for engineering students who are U.S. citizens or permanent residents to learn about technology commercialization and entrepreneurship. USC is the first university in South Carolina to get this grant; the College of Engineering is working closely with the Darla Moore School of Business to imbue students with the unique training and skill sets to advance the engineering of nanomaterials into the business of sustainable energy generation.

"What's unique is that we have industry leaders teaching courses. Next semester, Michael Couick, president and CEO of the Electric Cooperatives of South Carolina, will be teaching a course on energy policy, something engineers in the energy industry must understand to be effective and successful," said Lauterbach.

In 2013, Lauterbach and his students founded SAGE Energy Solutions, LLC, a startup company focused on silent power generation using transportation fuels. The startup has raised about \$100,000, more than half from the NSF I-CORPS grant. The I-CORPS grant has teamed Lauterbach and two graduate students with an entrepreneur from Atlanta in an intense, nine-week "boot camp" to learn not only the basics of entrepreneurship, but also to determine if SAGE Energy Solutions has what it takes to be a commercially successful venture.

No stranger to entrepreneurship having licensed technology in the past and sold equipment of his design to industry, Lauterbach is excited about South Carolina's future. "This is the spirit of the SmartState Program: start companies, create jobs and train future entrepreneurs to start and run companies." ▼



UNIVERSITY OF
SOUTH CAROLINA

“The \$11.3 million COBRE grant is recognition that the most promising pharmaceuticals—ones that provide more effective approaches to hard-to-treat diseases—are now being discovered in academic labs through multidisciplinary collaborations.”

IGOR RONINSON, Ph.D.
ENDOWED CHAIR,
SMART STATE CENTER FOR
TRANSLATIONAL CANCER
THERAPEUTICS

NIH Invests \$11.3 Million in SC Drug Discovery

Dr. Igor Roninson, the SmartState Endowed Chair in Translational Cancer Therapeutics, has recently received a new assignment. An international expert in cancer research, he will lead a new research initiative, the Center for Targeted Therapeutics. The University of South Carolina was awarded an \$11.3 million federal grant this summer to create the research center dedicated to finding the next generation of drugs to treat everything from cancer to diabetes.

THE FIVE-YEAR GRANT is among the largest competitive awards in USC's history and will establish the new Center at the South Carolina College of Pharmacy. The award is funded through the National Institutes of Health's Centers of Biomedical Research Excellence (COBRE) program.

Targeted drug therapy is one of healthcare's most vital research areas. Roninson was recruited as a SmartState Endowed Chair because he is among the most gifted scientists in targeted drug therapeutics.

Under Roninson's leadership, the Center for

Targeted Therapeutics will work toward creating new drugs that target the underlying causes of diseases on a molecular level without the adverse side effects common to traditional pharmaceuticals. The Center will also mentor junior scientists who are South Carolina's future leaders in drug discovery. Initial projects will include finding ways to combat cancer and neurological diseases.

Roninson is eager for the challenge, citing the critical role universities play in bringing new drugs to market. "Drug discovery is very time and resource intensive. Big pharmaceutical companies are not doing the type of research we can do in a university setting. The COBRE grant recognizes that the most promising pharmaceuticals—ones that provide more effective approaches to hard-to-treat diseases—are now being discovered in academic labs through multidisciplinary collaborations, before they are picked up by big pharma," he explained.


Roninson knows this first hand. He is the founder of Senex Biotechnology, a company that develops targeted drugs based on discoveries in his lab. Roninson brought the company to South Carolina from New York three years ago, and is establishing partnerships with pharmaceutical companies to launch the first human trials of its most advanced cancer drug at the Medical University of South Carolina, a founding partner with USC in the South Carolina College of Pharmacy. Both universities will have researchers at the Center for Targeted Therapeutics.

"The new COBRE Center represents a significant investment in South Carolina and an opportunity to have a tangible, positive impact on global health," Roninson said. ▼

Smartstate Centers and Endowed Chairs

The work of South Carolina's SmartState Centers is exciting, groundbreaking, and of critical importance to the state, nation, and world. What follows is a brief overview of each Center.

TOTALS FOR SMARTSTATE PROGRAM

-  **51** SmartState Program Centers Awarded
-  **88** SmartState Endowed Chairs Created
-  **46** SmartState Endowed Chairs Appointed
-  **42** SmartState Endowed Chairs Remaining to be Appointed



	13	18	20
	16	30	42
	6	18	22
	10	12	20

PROGRAM TOTALS REPORTED as of November 2014.

In cases of joint proposals, Centers awarded by institution are tallied by the fiscal agent. Endowed chairs are tallied based on the assigned institution. USC's assigned endowed chairs include one joint appointment with MUSC. On the pages that follow, information about each SmartState Center is provided including the date the Center was approved, the institution(s) awarded, the state award

amount that must be matched with an equal amount of non-state investment, the appointed endowed chair(s) as of November 2014, reported extramural research funding (federal and private awards) above the match, and a brief description of the research focus. Centers are grouped by industry cluster. For updated information on Centers and program totals, contact the S.C. Commission on Higher Education or visit SmartStatesc.org.



ADVANCED FIBER-BASED MATERIALS

Award Date: 2006

State Award Amount: \$4 million

University: Clemson

Endowed Chair(s):

Dr. Marek Urban
J.E. Sirrine Foundation Endowed
Chair in Advanced Fiber-Based
Materials

Corporate Partner(s):

J.E. Sirrine Textile Foundation

External Funding Above Match:

\$10.5 million

Research Focus:

To provide the vehicle for repositioning existing manufacturing resources to support new industry opportunities based on advanced fiber-based products.

ENVIRONMENTAL NANOSCIENCE AND RISK

Award Date: 2008

State Award Amount: \$3 million

University: USC

Endowed Chair(s):

Dr. Jamie Lead

External Funding Above Match:

\$1.6 million

Research Focus:

Understand the fundamental properties of nanomaterials and nanomaterials-environment interaction and use these principles to understand and help reduce impacts of nanomaterials as used as well as develop and innovate nanotechnological applications.

EXPERIMENTAL NANOSCALE PHYSICS

Award Date: 2003

State Award Amount: \$4 million

University: USC

Endowed Chair(s):

Dr. Richard Webb

External Funding Above Match:

\$5.1 million

Research Focus:

Perform basic and applied research of potential spintronic optoelectronic and nanoelectronic devices and/or materials for future applications in information processing, high-speed, high-density electronics, and bio, chemical and radiation sensing.

MULTIPHYSICS OF HETEROGENEOUS ENGINEERED FUNCTIONAL MATERIALS & STRUCTURES

Award Date: 2013

State Award Amount: \$2 million

University: USC

Endowed Chair(s):

USC is recruiting one endowed chair.

Research Focus:

The development and supply of engineered materials for high technology industries such as aerospace by providing a foundation of research and development that will enable and enhance growth in the engineered materials field. Specific examples of research and development include: Lightning strike and EMF management, structural integrity, energy storage, essential power for commercial aircraft, and multi-physics-based micro/nano mechanics of dielectric materials.

OPTICAL MATERIALS/PHOTONICS

Award Date: 2004

State Award Amount: \$5 million

University: Clemson

Endowed Chair(s):

Clemson is recruiting J.E. Sirrine
Textile Foundation Endowed Chair in
Optical Fiber.

Corporate Partner(s):

J.E. Sirrine Textile Foundation

External Funding Above Match:

\$21.7 million

Research Focus:

Conduct materials research and recruit and mentor graduate students with a focus on domestic scholars. Identify and foster the latest technologies and initiate partnerships with top national research universities and laboratories, Aid South Carolina industry and economic development partners in the transfer of technology from Clemson to the public sector, and participate in the recruitment of optical technology firms to South Carolina.

POLYMER NANOCOMPOSITES

Award Date: 2004

State Award Amount: \$3.5 million

University: USC

Endowed Chair(s):

Dr. Brian Benicewicz
Materials Science & Engineering

Corporate Partner(s):

Michelin North American, BASF, U.S.
Navy, PBI Performance Products

External Funding Above Match:

\$12.2 million

Research Focus:

Development of synthetic tools needed to precisely control the environment or interface between nanoparticles and polymer matrix applicable to optics, electronics, biological, medical, and structural material applications.

AUTOMOTIVE & TRANSPORTATION



AUTOMOTIVE DESIGN AND DEVELOPMENT

Award Date: 2004

State Award Amount: \$5 million

University: Clemson

Endowed Chair(s):

Dr. Zoran Filipi
Timken Endowed Chair in Automotive Design & Development

Corporate Partner(s):

Hertz Corporation, Duke Energy

External Funding Above Match:

\$5.9 million

Research Focus:

Focuses on the research and design of advanced powertrains for internal combustion engines and hybrid and electric vehicles, along with lightweight design and materials, functional integration and structural dynamics for vehicles.

AUTOMOTIVE MANUFACTURING

Award Date: 2003

State Award Amount: \$5 million

University: Clemson

Endowed Chair(s):

Clemson is recruiting one endowed chair.

Corporate Partner(s):

BMW

External Funding Above Match:

\$7.9 million

Research Focus:

Develops micro-electromechanical systems technologies for manufacturing and improving the efficiency of manufacturing large, complex objects. The goal is for the Center to be the premier automotive and motorsports research and educational facility in the world.

SUPPLY CHAIN OPTIMIZATION AND LOGISTICS

Award Date: 2006

State Award Amount: \$2 million

University: Clemson

Endowed Chair(s):

Dr. Scott Mason
Fluor Endowed Chair in Supply Chain Optimization & Logistics

Corporate Partner(s):

Fluor

External Funding Above Match:

\$10.3 million

Research Focus:

Interdisciplinary research addressing the multifaceted problems associated with supply chains. Deliver tangible supply chain optimization and logistics products and services through theoretical and applied research.

VEHICLE ELECTRONIC SYSTEMS INTEGRATION

Award Date: 2004

State Award Amount: \$3 million

University: Clemson

Endowed Chair(s):

Dr. Todd Hubing
Michelin Endowed Chair in Vehicle Electronic Systems Integration

Corporate Partner(s):

Michelin

External Funding Above Match:

\$1.7 million

Research Focus:

Research in automotive and vehicular electronics, particularly systems integration issues, electromagnetic compatibility and electromagnetic modeling.

AUTOMOTIVE SYSTEMS INTEGRATION

Award Date: 2003

State Award Amount: \$5 million

University: Clemson

Endowed Chair(s):

Dr. Paul Venhovens
BMW Endowed Chair in Automotive Systems Integration

Corporate Partner(s):

BMW, Mazda, GM and others

External Funding Above Match:

\$3.7 million

Research Focus:

Automotive diagnostics and prognostics, sustainable mobility, concepts, methods and tools. Deriving a simple, flexible energy management control strategy for plug-in hybrid electric vehicles.



ADVANCED TISSUE BIOFABRICATION

Award Date: 2008

State Award Amount: \$5 million

Universities: MUSC, USC, Clemson

Endowed Chair(s):

MUSC, USC, and Clemson are recruiting endowed chairs in *Biofabrication Biology* and *Biofabrication Engineering*.

Research Focus:

Develop innovative technologies and approaches that will enable repair, replacement, or restoration of diseased cells, tissues and organs.

BRAIN IMAGING

Award Date: 2003

State Award Amount: \$5 million

Universities: USC, MUSC

Endowed Chair(s):

Dr. Chris Rorden, USC

Dr. Joseph Helpen, MUSC

MUSC is recruiting an additional chair.

External Funding Above Match:

\$27.4 million

Research Focus:

Creating a world-class brain imaging center. Initiated the first study using transcranial magnetic stimulation (TMS). Combined with functional MRI, TMS provides a short strong magnetic field useful for studying how the brain works. Specific studies include stroke-related brain injury and MRI physics techniques for clinical and neuroscience research.

PROSTATE CANCER DISPARITIES

Award Date: 2008

State Award Amount: \$3.6 million

University: MUSC, USC, SCSU

Endowed Chair(s):

Dr. Chanita Hughes-Halbert
AT&T Distinguished Endowed Chair in Cancer Equity in Cancer Disparities

MUSC and USC are each recruiting a chair in *Cancer Disparities*.

Corporate Partner(s):

AT&T Foundation

External Funding Above Match:

\$32.5 million

Research Focus:

Facilitate statewide partnerships in cancer prevention and control research, clinical trials, and training to significantly decrease disparities in prostate cancer incidence and mortality in South Carolina.

CHILDHOOD NEUROTHERAPEUTICS

Award Date: 2006

State Award Amount: \$5 million

Universities: USC, MUSC

Endowed Chair(s):

Dr. Jeffrey Twiss, USC
Child and Adolescent Neurochemistry

USC is recruiting an endowed chair in *Translational Clinical Research*.

MUSC is recruiting an endowed chair in *Neurodevelopmental Disorders*.

External Funding Above Match:

\$7.2 million

Research Focus:

Prevention of brain damage in premature infants and curing infant brain diseases through cellular engineering. Also working on cognitive behavioral tasks in transgenic mice to determine if therapeutics can improve functional development outcomes, which may someday help children with ADHD.

CLINICAL EFFECTIVENESS AND PATIENT SAFETY

Award Date: 2006

State Award Amount: \$5 million

Universities: MUSC, USC

Endowed Chair(s):

Dr. John Schaefer, MUSC
Lewis Blackman Endowed Chair for Patient Simulation & Research for Health Sciences South Carolina

Dr. Jihad Obeid, MUSC
Biomedical Informatics

Dr. Rita Snyder, USC

External Funding Above Match:

\$12.1 million

Research Focus:

Quality and safety of patient care, and improving the medical informatics aspects of data acquisition and the evaluation of health information technology on the quality and safety of clinical care processes and outcomes. The Center also focuses on developing South Carolina as a training center for physicians and other health professions using human simulators and sophisticated software-based training scenarios.

BIOMEDICAL



HEALTHCARE QUALITY

Award Date: 2007

State Award Amount: \$5 million

Universities: USC, MUSC

Endowed Chair(s):

Dr. Les Lenert
Medical Bioinformatics

USC is recruiting an endowed chair in *Translational Clinical Research*.

Corporate Partner(s):

The Duke Endowment

External Funding Above Match:

\$18.3 million

Research Focus:

Creating a unique and comprehensive clinical data store that collects data from providers, enhances data usability, and makes it available in an easily accessible form for participants to use for clinical improvement and research purposes.

HEALTH FACILITIES DESIGN AND TESTING

Award Date: 2007

State Award Amount: \$2 million

University: Clemson, MUSC

Endowed Chair(s):

Clemson is recruiting a chair in *Architecture & Health Research*.

MUSC is recruiting a chair in *Clinical Practice and Human Factors*.

External Funding Above Match:

\$1.4 million

Research Focus:

The impact of health facility design on health and healthcare delivery and the creation of architectural settings that provide better support for the health, safety, and wellbeing of patients and staff.

INFLAMMATION AND FIBROSIS RESEARCH

Award Date: 2010

State Award Amount: \$5 million

University: MUSC

Endowed Chair(s):

Carol Feghali-Bostwick, Ph.D.
Kitty Trask Holt Endowed Chair for Scleroderma Diseases

MUSC is recruiting a chair in *Inflammation Research*.

External Funding Above Match:

\$14.2 million

Research Focus:

Develop new therapies and education programs for inflammatory and fibrosing rheumatic diseases such as lupus, scleroderma, and rheumatoid arthritis.

MARINE GENOMICS

Award Date: 2003

State Award Amount: \$4 million

Universities: MUSC, USC, College of Charleston

Endowed Chair(s):

Dr. Louis J. Guillette, MUSC

Dr. Gavin Naylor, MUSC
Bioinformatics

USC chair currently open.

External Funding Above Match:

\$8.9 million

Research Focus:

Monitoring and predicting the impact of environmental changes on marine biosystems, which can, in turn, affect human health. Specific areas of study include environmental causation in wildlife, human disease and susceptibility, and mapping variability in genomes and populations; as well as research of shark and ray species.

MOLECULAR PROTEOMICS IN CARDIOVASCULAR DISEASE AND PREVENTION

Award Date: 2006

State Award Amount: \$5 million

University: MUSC

Endowed Chair(s):

Dr. Sheldon E. Litwin, MUSC
Countess Alicia Spaulding Palozzi Chair in Cardiovascular Imaging

MUSC is recruiting the *Volpe SmartState® Endowed Chair in Cardiovascular Biomarker Development for Diagnosis & Prevention*.

External Funding Above Match:

\$4.5 million

Research Focus:

Translation advances in basic bench science to clinical bedside care to improve the health care of the citizens of South Carolina. Priorities include diagnostic techniques, therapeutic management strategies, relations of protein signatures to clinical outcomes for risk assessment, and treatment of disease manifestation.

NEUROSCIENCE

Award Date: 2003

State Award Amount: \$3 million

University: MUSC

Endowed Chair(s):

Dr. Gary Aston Jones
William E. Murray Endowed Chair in Neuroscience

MUSC is recruiting an endowed chair in *Movement Disorders*.

MUSC is recruiting *Josephine Tucker Morse Endowed Chair in Parkinson's Research*.

External Funding Above Match:

\$14.5 million

Research Focus:

Brain neuromodulatory systems and their roles in cognitive performance, drug abuse, sleep and affective disorders. Other areas of research are movement disorders such as Ataxia, Choro, Bradykinesia and multiple system atrophy.

BIOMEDICAL



PROTEOMICS

Award Date: 2003

State Award Amount: \$4 million

University: MUSC

Endowed Chair(s):

Dr. Richard Drake

MUSC is recruiting a second chair.

External Funding Above Match:

\$21.5 million

Research Focus:

Develop and use high-end analytical technologies to understand the biologic profile of protein expression in health and disease. Developing enzyme-based analytical methods to effectively detect biomolecules in tissues and tissue microarray platforms.

REGENERATIVE MEDICINE

Award Date: 2004

State Award Amount: \$5 million

Universities: MUSC, USC, Clemson

Endowed Chair(s):

Dr. Martin Morad, USC

BlueCross BlueShield of SC Foundation Chair in Cardiovascular Health

MUSC is recruiting an endowed chair in *Regenerative Medicine and Cell Biology*.

Clemson is recruiting the *Hansjörg Wyss Endowed Chair in Bioengineering*.

External Funding Above Match:

\$40.6 million

Research Focus:

Regenerative medicine approach for cardiovascular applications and provide expertise in clinical trials, statistics and/or assay development. Application of regenerative medicine and tissue engineering approaches to orthopaedic and neural diseases. Regeneration of tissue and organs for repairing, replacing, and maintaining organ function.

REHABILITATION AND RECONSTRUCTION SCIENCES

Award Date: 2007

State Award Amount: \$5 million

University: USC

Endowed Chair(s):

Dr. John Brooks, USC

Corporate Partner(s):

Smith&Nephew

External Funding Above Match:

\$15.2 million

Research Focus:

Medical health needs in orthopaedic disorders, exercise and sports-related injury prevention, treatment, and rehabilitation. The Center investigates the biologics of tissue-engineered materials and implantable devices to find solutions to musculoskeletal maladies.

RENAL DISEASE BIOMARKERS

Award Date: 2008

State Award Amount: \$5 million

University: MUSC

Endowed Chair(s):

MUSC is recruiting endowed chairs in *Renal Biomarkers and Translational Nephrology Research*.

External Funding Above Match:

\$4.7 million

Research Focus:

Identifying biomarkers that identify or predict prognosis for acute kidney injury, diabetic neuropathy, lupus nephritis, and focal segmental alomerulosclerosis.

SENIORSMART®

Award Date: 2007

State Award Amount: \$5 million

Universities: USC, Clemson

Endowed Chair(s):

Dr. Sue Levkoff, USC

SMARTHome®

USC is recruiting a chair in *SMARTBrain®*.

Clemson is recruiting a chair in *SMARTWheels®*.

External Funding Above Match:

\$7.3 million

Research Focus:

Three areas of research include: *SMARTBrain®* (maintaining intellectual activity), *SMARTWheels®* (independent mobility outside the home) and *SMARTHome®* (independent mobility inside the home) to foster independent living among seniors.

BIOMEDICAL



STROKE

Award Date: 2007

State Award Amount: \$5 million

Universities: MUSC, USC

Endowed Chair(s):

Dr. Robert Adams, MUSC
Stroke

Dr. Mark Chimowitz (MUSC)
*Countess Alicia Paolozzi Endowed
Chair in Translational Neurology*

Dr. Souvik Sen, USC
Clinical Neurology

External Funding Above Match:

\$19.5 million

Research Focus:

Enhancing stroke treatment, prevention, and recovery. This Center is developing new stroke-related therapeutics, drug discovery, and biotechnology, and is a leader in stroke telemedicine.

TECHNOLOGY CENTER TO ENHANCE HEALTHFUL LIFESTYLES

Award Date: 2009

State Award Amount: \$3 million

Universities: USC, MUSC

Endowed Chair(s):

Dr. Frank Trieber, MUSC
*Technology Applications for Disease
Prevention, Management, and Risk
Reduction*

Delia West, USC
*Technology Application for Health
Behavior Change.*

External Funding Above Match:

\$13.6

Research Focus:

Develop and test lifestyle interventions for improving health, preventing illness and managing chronic health problems caused by physical inactivity, poor diets, and other lifestyle behaviors.

TOBACCO-RELATED MALIGNANCIES

Award Date: 2007

State Award Amount: \$5 million

University: MUSC

Endowed Chair(s):

Dr. Nancy Demore
*BMW Chair in Cancer Research
and Burtschy Family Distinguished
Endowed Chair in Lung Cancer
Research.*

Corporate Partner(s):

BMW

External Funding Above Match:

\$52.1 million

Research Focus:

Devoted to discovering tobacco-related malignancy biomarkers via clinical trials with a specific focus on tobacco-related cancers. Additionally, the Center is evaluating the specificity and sensitivity of novel biomarkers by molecular epidemiologic techniques across the diverse populations of South Carolina.

TRANSLATIONAL BIOMEDICAL INFORMATICS

Award Date: 2013

State Award Amount: \$2 million

University: MUSC

Endowed Chair(s):

MUSC is recruiting one
endowed chair.

Research Focus:

The new Center will provide expertise in translational biomedical informatics essential for cutting-edge, innovative methodologies to link genetic/genomic data with vast amounts of clinical data. The contributions of the center to data sharing/analysis will decrease cost and increase efficiency in research and healthcare delivery and provide a robust IT platform for industry partnerships and new company formation.

VISION SCIENCE

Award Date: 2005

State Award Amount: \$4.5 million

Universities: MUSC

Endowed Chair(s):

MUSC is recruiting two endowed
chairs.

Corporate Partner(s):

Alcon Labs, Taligen, Alexion
Pharmaceuticals

External Funding Above Match:

\$21.8 million

Research Focus:

New treatments for macular degeneration, development of new anti-glaucoma agents and innovations in cataract surgery. The Center also focuses on using advances in bioengineering and material sciences to improve the diagnosis, treatment, and prevention of eye diseases.

ENERGY & ALTERNATIVE FUELS



CATALYSIS FOR RENEWABLE FUELS

Award Date: 2005

State Award Amount: \$3 million

University: USC

Endowed Chair(s):

Dr. John Regalbuto

External Funding Above Match:

\$9.2 million

Research Focus:

Developing catalysts that allow production of alternative fuels from renewable sources, thereby reducing dependence on imported oil and carbon fuel. The Center focuses on synthesizing inorganic catalysts for converting biomass to biofuels and synthesizing electrocatalysts for solar fuels and fuel cells.

GENERAL ATOMICS CENTER FOR THE DEVELOPMENT OF TRANSLATIONAL NUCLEAR TECHNOLOGY

Award Date: 2009

State Award Amount: \$3 million

University: USC

Endowed Chair(s):

USC is recruiting one chair in *Energy and Nuclear Security*.

Corporate Partner(s):

General Atomics

External Funding Above Match:

\$4.8 million

Research Focus:

The production of biofuels and coal to liquid fuels using nuclear process heat for more efficient production and the reduction of wastes associated with recycling of used fuel, seeking more long term strategies to manage used fuel, recovery of energy value in used fuel, and eliminating concerns over proliferation associated with recycling used fuel.

HYDROGEN ECONOMY

Award Date: 2004

State Award Amount: \$5 million

University: USC

Endowed Chair(s):

USC is recruiting two endowed chairs in *Discovery and Innovation*.

Corporate Partner(s):

Office of Naval Research (projects)

External Funding Above Match:

\$21.6 million

Research Focus:

Advance the science and use of clean, secure and renewable energy technologies and transportation fuel, including hydrogen fuel cells.

NUCLEAR SCIENCE AND ENERGY

Award Date: 2008

State Award Amount: \$3 million

University: USC

Endowed Chair(s):

Dr. Dan Gabriel Cacuci
Nuclear Power and Advanced Materials

Corporate Partner(s):

Duke Energy, Progress Energy, SCANA, Westinghouse

External Funding Above Match:

\$6.6 million

Research Focus:

Performance, efficiency, and maintenance issues at existing and future nuclear power plants using expertise modeling and simulation related to nuclear fuels and materials.

SMART GRID TECHNOLOGY

Award Date: 2013

State Award Amount: \$5 million

University: Clemson

Endowed Chair(s):

Clemson is recruiting one endowed chair.

Corporate Partner(s):

Duke Energy

External Funding Above Match:

\$739,331

Research Focus:

Develop technology to better manage global electric grid systems.

SOLID OXIDE FUEL CELLS

Award Date: 2006

State Award Amount: \$3 million

University: USC

Endowed Chair(s):

Dr. Kenneth Reifsnider

External Funding Above Match:

\$55.1 million

Research Focus:

Develop solid oxide fuel cells for use in large, high-power systems such as industrial sites and electricity generating stations as well as for mobile power for computers, cell phones, and other electronics.

STRATEGIC APPROACHES TO THE GENERATION OF ELECTRICITY (SAGE)

Award Date: 2007

State Award Amount: \$5 million

University: USC

Endowed Chair(s):

Dr. Jochen Lauterbach

External Funding Above Match:

\$9.8 million

Research Focus:

Developing, improving, and advancing technologies to enhance the environmental performance of electricity production. Other work focuses on converting CO₂ to chemicals, fuel cell and hydrogen storage-related research, and chemical production from coal to biomass.

INFORMATION SCIENCE



CYBERINSTITUTE

Award Date: 2008

State Award Amount: \$2 million

University: Clemson

Endowed Chair(s):

Clemson is recruiting the *C. Tycho Howle Endowed Chair in Collaborative Computing Environments*

Corporate Partner(s):

Omnibond Systems, LLC

External Funding Above Match:

\$4.1 million

Research Focus:

Connecting research and scholarship, particularly in the fields of human computer interaction, data storage, interpretation, and visualization to the commercial sector via strategic industrial partnerships. Conduct research in conjunction with the Clemson University Cyber-Institute.

DATA ANALYSIS, SIMULATION, IMAGING, AND VISUALIZATION

Award Date: 2010

State Award Amount: \$2 million

University: USC

Endowed Chair(s):

Recruiting for *Williams-Hedberg-Hedberg Chair of Mathematics*

External Funding Above Match:

\$1.9 million

Research Focus:

Develop technology for transforming data into knowledge concentrating on inline data processing, multi-sensor data acquisition, tissue modeling, atomic scale modeling, and bioimaging.

OPTOELECTRONICS

Award Date: 2008

State Award Amount: \$2 million

University: Clemson

Endowed Chair(s):

Dr. Eric Johnson
PalmettoNet Endowed Chair in Optoelectronics

Corporate Partner(s):

Advanced Photonic Crystal, Tetramer Technologies

External Funding Above Match:

\$3.8 million

Research Focus:

Improving devices, systems, and protocols used in high-speed optical communications networks.

SUSTAINABLE DEVELOPMENT

Award Date: 2010

State Award Amount: \$4 million

University: Clemson

Endowed Chair(s):

Clemson is recruiting the *Thomas F. Hash '69 Endowed Chair in Sustainable Development*.

External Funding Above Match:

\$2.1 million

Research Focus:

Developing new technologies to support real-time monitoring and management of natural and built environments through the Intelligent River™ Project. The Center has created a wireless sensor that can monitor and transmit environmental data in real time.

TOURISM AND ECONOMIC DEVELOPMENT

Award Date: 2005

State Award Amount: \$2 million

University: USC

Endowed Chair(s):

Dr. Simon Hudson

Corporate Partner(s):

Rawle Murdy
US Travel Association (USTA)

External Funding Above Match:

\$303,459

Research Focus:

Tourism is a \$17 billion industry in South Carolina. The Center conducts cutting-edge tourism and hospitality research initiatives that will improve South Carolina's competitiveness as a tourism destination.

URBAN ECOLOGY AND RESTORATION

Award Date: 2006

State Award Amount: \$2 million

University: Clemson

Endowed Chair(s):

Clemson is recruiting one endowed chair.

External Funding Above Match:

\$6.4 million

Research Focus:

Applied research in environmental science and engineering, habitat restoration and water quality management; environmental industry growth; and urban ecology projects in South Carolina.



CANCER DRUG DISCOVERY

Award Date: 2005

State Award Amount: \$5 million

Universities: MUSC, USC

Endowed Chair(s):

Dr. John LeMasters, MUSC
*GlaxoSmithKline Distinguished
Endowed Chair*

Dr. Patrick Woster, MUSC
Medicinal Chemistry

MUSC is recruiting two endowed chairs in *Structural Biology* and *Pharmacy*.

Corporate Partner(s):

GlaxoSmithKline

External Funding Above Match:

\$17.5 million

Research Focus:

Advanced biomedical screening technologies to identify disease mechanisms and targets, and also screening drug candidates. Structural biology for target analysis, chemical biology for designing drug candidates, and advanced biomedical screening technologies.

CANCER STEM CELL BIOLOGY AND THERAPY

Award Date: 2008

State Award Amount: \$5 million

Universities: MUSC, Clemson

Endowed Chair(s):

Dr. Zihai Li, MUSC
*Abney Endowed Chair Remembering
Sally Abney Rose*

Dr. Xue Zhong Yu, MUSC
Biomedical Engineering

External Funding Above Match:

\$9.9 million

Research Focus:

Developing new technologies for isolating, growing, and manipulating cancer stem cells. This will enable the Center to find ways to use adult

stem cells from bone marrow or organs to treat cancer.

GASTROINTESTINAL CANCER DIAGNOSTICS

Award Date: 2005

State Award Amount: \$5 million

University: MUSC

Endowed Chair(s):

Dr. Carolyn Britten
*Charles Westerfield Coker Distinguished Chair in Gastrointestinal
Malignancy*

Recruiting for Grace E. DeWolff
Endowed Chair in Medical Oncology

Corporate Partner(s):

Roche Carolina, Bank of America

External Funding Above Match:

\$12.3 million

Research Focus:

Clinical and translational gastrointestinal oncology and biomarker development and gastrointestinal (GI) malignancies. Bringing state-of-the-art translational medicine to all GI cancer patients in South Carolina, thereby decreasing the overall impact of cancer mortality and morbidity and closing disparity gaps throughout the state.

LIPIDOMICS, PATHOBIOLOGY AND THERAPY

Award Date: 2009

State Award Amount: \$5 million

University: MUSC

Endowed Chair(s):

Dr. J. Alan Diehl
Lipidomics & Pathobiology

MUSC is recruiting a chair in *Lipidomics Drug Discovery*.

External Funding Above Match:

\$26.8 million

Research Focus:

Develop models for translational research and study of lipidomics

and their pathobiology with an emphasis on cancer and inflammation.

MEDICATION SAFETY AND EFFICACY

Award Date: 2008

State Award Amount: \$2 million

Universities: MUSC, USC

Endowed Chair(s):

Dr. Charles Bennett
*Frank P. and Josie M. Fletcher
Professor of Pharmacy*

External Funding Above Match:

\$4 million

Research Focus:

Increasing drug safety and effectiveness, as well as decreasing medication errors by identifying the incidence and significance of adverse drug events.

TRANSLATIONAL CANCER THERAPEUTICS

Award Date: 2004

State Award Amount: \$5 million

Universities: MUSC, USC

Endowed Chair(s):

Dr. Kenneth Tew, MUSC
*John C. West Endowed Chair
in Cancer Research*

Dr. Igor Roninson, USC
Drug Efficacy

External Funding Above Match:

\$21.3 million

Research Focus:

Development of new approaches in cancer treatment, including the discovery and development of new drugs. Research also focuses on utilizing mouse models predisposed to cancer to study the impact of gene misregulation and therapeutic agents on tumor development, and the identification and inhibition of new cancer drug targets.

SmartState Endowed Chairs

South Carolina's SmartState Centers are led by endowed chairs; they are engineers, scientists, and researchers who are recognized experts in their respective fields.

THE ROLE OF SMARTSTATE endowed chairs is to serve as catalysts for the state's knowledge economy. Eight-eight endowed chairs have been approved to fill positions at Clemson, MUSC, and USC across the 51 SmartState Centers. As of November 2014, 46 chairs are filled. The SmartState Program welcomed

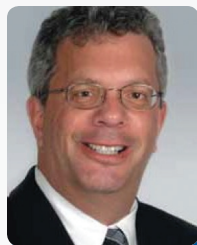
four new endowed chairs (Dr. Delia Smith West, Dr. John Brooks, Dr. Carol Feghali-Bostwick, and Dr. Les Lenert) during 2013-2014 and three new chairs (Dr. J. Alan Diehl, Dr. Nancy DeMore and Dr. Sheldon E. Litwin) thus far in 2014-2015. We invite you to meet the SmartState endowed chairs.



Dr. Robert Adams
Stroke
MUSC



Dr. Brian Benicewicz
Polymer Nanocomposites
USC



Dr. Charles Bennett
Medication Safety
and Efficacy
USC



Dr. Carolyn Britten
Gastrointestinal Cancer
Diagnostics
MUSC



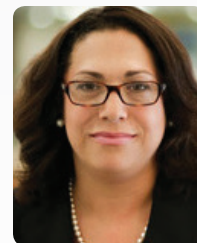
Dr. John Brooks
Rehabilitation and Recon-
struction Science
USC



Dr. Don Gabriel Cacuci
Nuclear Science and
Energy
USC



Dr. Mark Chimowitz
Stroke
MUSC



Dr. Nancy DeMore
Tobacco-related Malignancies
MUSC



Dr. J. Alan Diehl
Lipidomics Pathobiology
and Therapy
MUSC



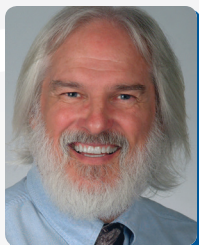
Dr. Richard Drake
Proteomics
MUSC



Dr. Carol Feghali-Bostwick
Rheumatology and
Immunology
MUSC



Dr. Zoran Filipi
Automotive Design and
Development
Clemson



Dr. Louis Guillet
Marine Genomics
MUSC



Dr. Joseph Helpert
Brain Imaging
MUSC



Dr. Todd Hubing
Vehicle Electronics Systems
Integration
Clemson



Dr. Simon Hudson
Tourism and Economic
Development
USC



Dr. Chanita Hughes-Halbert
Prostate Cancer Disparities
MUSC



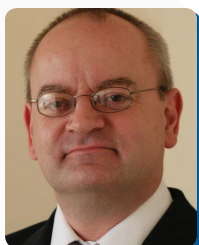
Dr. Eric Johnson
Optoelectronics
Clemson



Dr. Gary Aston Jones
Neuroscience
MUSC



Dr. Jochen Lauterbach
Strategic Approaches
to the Generation of
Electricity (SAGE)
USC



Dr. Jamie Lead
Environmental
Nanoscience and Risk
USC



Dr. John LeMasters
Cancer Drug Discovery
MUSC

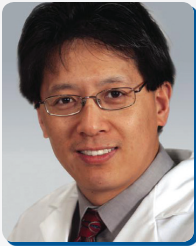


Dr. Les Lenert
Healthcare Quality
MUSC



Dr. Sue Levkoff
SeniorSmart®
USC

SmartState Endowed Chairs



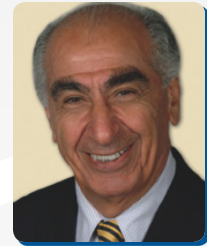
Dr. Zihai Li
*Cancer Stem Cell Biology
and Therapy*
MUSC



Dr. Sheldon E. Litwin
*Molecular Proteomics in
Cardiovascular Disease
and Prevention*
MUSC



Dr. Scott Mason
*Supply Chain Optimization
and Logistics*
Clemson



Dr. Martin Morad
Regenerative Medicine
USC



Dr. Gavin Naylor
Marine Genomics
MUSC



Dr. Jihad Obeid
*Clinical Effectiveness
and Patient Safety*
MUSC



Dr. John Regalbuto
*Catalysis for Renewable
Fuels*
USC



Dr. Kenneth Reifsnider
Solid Oxide Fuel Cells
USC



Dr. Igor Roninson
*Translational Cancer
Therapeutics*
USC



Dr. Chris Rorden
Brain Imaging
USC



Dr. John Schaefer
*Clinical Effectiveness
and Patient Safety*
MUSC



Dr. Souvik Sen
Stroke
USC



Dr. Rita Snyder
*Clinical Effectiveness
and Patient Safety*
USC



Dr. Kenneth Tew
*Translational Cancer
Therapeutics*
MUSC



Dr. Frank Trieber
*Technology Center to
Enhance Healthy Lifestyles*
MUSC



Dr. Jeffrey Twiss
*Childhood
Neurotherapeutics*
USC



Dr. Marek Urban
Advanced Fiber Materials
Clemson



Dr. Paul Venhovens
*Automotive Systems
Integration*
Clemson



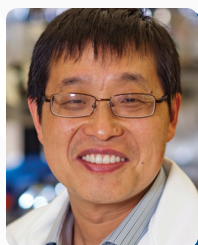
Dr. Richard Webb
*Environmental Nanoscale
Physics*
USC



Dr. Delia West
Health Behavior Change
USC



Dr. Patrick Woster
Cancer Drug Discovery
MUSC



Dr. Xue Zhong Yu
*Cancer Stem Cell Biology
and Therapy*
MUSC



“The \$3.5 million NCI Community Oncology Research Grant will increase access to clinical trials among African Americans across South Carolina, while allowing us to research how care is delivered so we can improve cancer survival in the future.”

CHANITA HUGHES-HALBERT, Ph.D.
AT&T DISTINGUISHED ENDOWED CHAIR
IN CANCER EQUITY
SMARTSTATE CENTER
FOR CANCER DISPARITIES

Hope for Minority Cancer Patients

Cancer is a threat to all South Carolinians, but for those of African American descent, cancer may be diagnosed at an advanced stage, when treatment is more difficult and less likely to be successful.

ONLY ABOUT 50 PERCENT of breast cancers among African American women are diagnosed at an early stage. About one in five African American men will be diagnosed with prostate cancer, and are more than twice as likely to die from it. African Americans are significantly more likely to have and die of colorectal cancer than whites.

Dr. Chanita Hughes-Halbert is the SmartState AT&T Distinguished Endowed Chair in Cancer Equity at the Hollings Cancer Center at MUSC. Under her leadership, MUSC was recently selected as one of twelve NCI Community Oncology Research Program (NCORP) centers in the United States, and received a \$3.5 million grant.

As a member of NCORP, MUSC is charged with bringing cancer clinical trials and cancer care delivery research to people in their own communities and generating data that will contribute to improving patient outcomes and a reduction in cancer disparities. Hughes-Halbert says this is great news for South Carolinians on a number of levels.

"South Carolina is fortunate to have a National Cancer Institute designated cancer center in Hollings Cancer Center that offers leading edge clinical trials. Many African Americans in South Carolina live in small or rural communities and don't have access to clinical trials. With this grant, we are hoping to change this," said Hughes-Halbert.

MUSC will be taking cancer clinical trials to other medical centers across the state. In addition to MUSC's East Cooper and North Charleston locations, cancer patients will be able to access cancer trials at Self Regional Healthcare in Greenwood, Georgetown Hospital System, Hilton Head Regional, and the Ralph H. Johnson VA Medical Center. This will give far greater numbers of minority cancer patients the opportunity to participate in potentially life-saving clinical trials.

Creating access is just a start. MUSC and its partners must also overcome other obstacles, said Hughes-Halbert. "MUSC and the University of South Carolina conducted a statewide community health survey that identified cancer, heart disease, and obesity as important to the African-American community. But there is a mistrust of the healthcare system we need to overcome and propose studies that are consistent with what these populations believe is important," she said.

Hughes-Halbert also said helping African Americans find medical homes is critical to improving overall health outcomes. "The healthcare system is complex and many people don't know how to navigate this system effectively. With the help of a family doctor, people will receive better health care and become better healthcare consumers." ▼



“The future depends on what we do in the present.”

MAHATMA GANDHI

INVESTING IN SOUTH CAROLINA Means Opportunities for the Future

The South Carolina General Assembly's vision, more than a decade ago, to create the SmartState Program has resulted in private investments, and business growth in South Carolina and job opportunities for our college graduates and citizens.

THE SMARTSTATE PROGRAM and its SmartState Endowed Chairs have been major catalysts for change. South Carolina is now among the nation's leaders in automotive engineering, FUTURE FUELS®, advanced materials, and biomedical research. Corporations like BMW, GM, Johnson Controls, and Laerdal see the Palmetto State as a preferred source of new technology and a well-prepared workforce. The state's brightest young minds now look at our universities as desired destinations to learn, conduct research and connect with industry.

South Carolina's investment in the SmartState Program was an investment in South Carolina and its future. We look forward to continuing to create opportunities for our state.

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The SmartState Program annual report is prepared annually for the South Carolina General Assembly and the South Carolina Budget and Control Board by the SmartState Review Board and the South Carolina Commission on Higher Education in accordance with S.C. Code of Laws §2-75-10.

In accordance with S.C. Code of Laws §1-11-425, the following information is provided: Number of reports printed: 300. Cost per report: \$9.18. Total printing cost: \$1,816.



SMARTSTATESC.ORG

South Carolina Commission on Higher Education
1122 Lady Street, Suite 300
Columbia, South Carolina 29201

**SOUTH CAROLINA CENTERS
OF ECONOMIC EXCELLENCE**

**FINANCIAL AND
COMPLIANCE REPORT**

JUNE 30, 2014

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2014**

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**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
REVIEW BOARD
JUNE 30, 2014**

<u>NAME</u>	<u>POSITION</u>	<u>APPOINTMENT</u>
Regan Voit	Chair	Chair, Senate Finance Committee
Melvin C. Williams	Vice-Chair	President Pro Tempore of the Senate
Lisa Main	Secretary	Speaker of the House
Robert W. Pearce, Jr.	Member	Speaker of the House
Patricia E. Wilson	Member	Speaker of the House
Patrick Turner	Member	President Pro Tempore of the Senate
Roberta Bankhead Wood	Member	Chair, House Ways and Means Committee
James P. Clements	Ex-Officio	President, Clemson University
David J. Cole	Ex-Officio	President, Medical University of S.C.
Harris Pastides	Ex-Officio	President, University of S.C.



SmartState Program
Management's Discussion and Analysis
Period: Fiscal Year 2013-14

Management's Discussion and Analysis provides an overview of the SmartState program and data covering the fiscal year ended June 30, 2014. This discussion and analysis should be read in conjunction with the financial statement and accompanying notes. The financial statements have been prepared by an independent auditor (Derrick, Stubbs & Stith, LLP) in accordance with S.C. Code of Laws, as amended, Section 2-75-10.

Overview of the SmartState Program

In 2002, the South Carolina General Assembly passed the Research Centers of Economic Excellence (RCEE) Act. The legislation originally required appropriation of \$200 million through 2010¹ from the South Carolina Education Lottery to establish unique Centers of Economic Excellence at South Carolina's three senior research institutions: Clemson University, University of South Carolina (USC), and Medical University of South Carolina (MUSC). Each Center of Economic Excellence (Center) specializes in unique, knowledge-based economy research (in fields such as engineering, nanotechnology, biomedical science, and energy science) that promotes and creates enhanced economic opportunities for the state. In 2008, the General Assembly amended the RCEE Act to replace the \$200 million funding cap and the 2010 sunset date with a statutory guarantee of \$30 million in annual funding so long as (a) Lottery-supported scholarships have been fully funded, and (b) the SmartState Review Board has, by the end of the most previous fiscal year, awarded a minimum of 80% of overall appropriations since 2003.

The RCEE Act also created the SmartState Review Board, which provides program oversight. The Review Board is composed of 11 members: three appointed by the

¹ The General Assembly appropriated \$30 million per year in the state budget for fiscal years 2003 through 2008. The General Assembly has appropriated no new funds for fiscal years 2009 through 2014.

Governor; three by the President Pro Tempore of the Senate; three by the Speaker of the House of Representatives; one by the Chair of the Senate Finance Committee; and one by the Chair of the House Ways & Means Committee. Membership terms are three years, and individuals may serve three total terms. Presidents of South Carolina's three research universities serve as ex-officio, non-voting members of the Review Board. Staff and operational support for the SmartState Program are provided by CHE.

The SmartState Review Board held its first meeting on October 17, 2002, at which it approved formal *Bylaws*. On December 5, 2002, the Review Board approved Program *Guidelines* and *Requests for Proposals Guidelines for 2002-2003*, which established a competitive, annual process whereby Centers of Economic Excellence are proposed by the research institutions and approved by the Review Board. The three-tier review process includes two rigorous scientific evaluations (a technical review and an onsite panel review), followed by the Review Board's analysis of the review findings and a formal vote on individual proposals. In 2008, the General Assembly amended the RCEE Act by encoding the technical and scientific review process for proposals.

Once a new Center is approved, an institution has 18 months in which to solicit non-state (private, federal, or municipal) investors to pledge dollar-for-dollar matching of a Center's total state award (between \$2 million to \$5 million). In February 2007, the SmartState Review Board approved a policy whereby an institution may apply for up to two six-month extensions beyond the 18-month pledge verification deadline. All matching pledges must be realized within 78 months of a Center's approval date. In February 2009, the SmartState Review Board approved a policy whereby an institution may apply for as many as two six-month extensions beyond the 78-month drawdown deadline.

State funds may only be drawn against perfected (eligible and received) non-state pledges. The majority of funds (all of the state funds plus no less than 30% of the non-state match) is placed in endowment, which may be used to pay the salaries or salary supplements of the world-class scientists (endowed chairs) specially recruited to lead each Center, as well as to pay for the purchase of specialized equipment, laboratory construction, other faculty, and research assistants. In 2008, the General Assembly amended the RCEE Act by encoding the use of a certain portion (determined by the

SmartState Review Board) of non-state matching funds “to pay for initial operating costs” of Centers (S.C. 2-75-100).

On December 12, 2006, the SmartState Review Board convened a Cost Share Work Group. Representatives from all three research institutions, the Office of the State Treasurer, and CHE gathered to discuss accounting standards related to the RCEE Act. On February 26, 2007, the Review Board approved a Cost Share Accounting Policy which contains specific guidelines for claiming and valuing in-kind matches. In 2008, the General Assembly amended the RCEE Act to encode the use of cash equivalent and in-kind donations as valid non-state matches for the SmartState Program.

In 2010, the General Assembly amended the RCEE act to create a new type of SmartState award to be made in concert with the South Carolina Department of Commerce. One-quarter of the unallocated Centers of Excellence Matching Endowment funds were dedicated for funding such “SmartState Commerce Awards.” SmartState Commerce Awards may not individually exceed \$2 million and do not require the dollar-for-dollar, non-state match of standard SmartState awards. In place of the matching requirement, the Secretary of Commerce is required to certify that a “significant capital investment” has been made in the related research field of the proposed SmartState Commerce Award professorial endowment. These revisions became effective January 1, 2011. The SmartState Review Board issued an RFP for awards in FY 2011. However, the awards for this component of the SmartState Program have not been made at the request of the Department of Commerce.

Over time, each research institution has developed concentrated SmartState focus areas. Clemson University’s core strengths lie in the area of automotive and transportation technology, advanced materials and biotechnology/biomedical sciences. USC’s Centers generally fall within three clusters: future fuels, biomedical sciences, and nanotechnology. MUSC’s strengths lie in the areas of neuroscience, cancer research, vascular disease, and health care quality and finance.

One hallmark of the SmartState Program is an almost unprecedented scientific collaboration at the academic level. More than one-third of the Centers are partnerships between and among state public institutions, including three four-year comprehensive teaching universities. Dr. John Schaefer, SmartState Endowed Chair at MUSC’s Clinical Effectiveness and Patient Safety Center has noted that such academic collaboration rarely

exists—not even at Harvard or Yale. The lure of bonded research partnerships serves as an enticing recruiting tool to the renowned scientists required to lead each Center.

2013-14 SmartState Summary Information

At the end of FY2014, the program consists of 51 Centers with 88 approved SmartState Endowed Chairs of which 44 have been appointed. As envisioned by the General Assembly, the SmartState Program has become a successful boost to the state's knowledge-based economy. Of the \$197.6 million² in SmartState awards granted by the Board through the end of FY 2014, \$197.6 million in matching pledges have been committed by non-state sources. Of the committed pledges through FY2014, \$188.7 million have been perfected and drawn down.

The table found on the following pages provides summary information on the Centers from FY 2002-03 through FY 2013-14.

² To date, the SmartState Review Board has obligated \$17.6 million in accrued program interest for the awarding of additional proposals, as is permitted by statute. To date, the Review Board has used all of the \$17.6 million in accrued interest to fund proposals in the 2008-2009, 2009-2010 and 2012-2013 award cycles.



**Summary of Approved SmartState Program
Centers of Economic Excellence by Fiscal (Funding) Year (2002-03 – 2012-14)**

Funding Year 2002-2003			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Automotive Systems Integration	1	\$5 million
Clemson	Automotive Manufacturing	1	\$5 million
USC	Nanostructures	1	\$4 million
USC/MUSC	Brain Imaging	3*	\$5 million
MUSC	Proteomics	2	\$4 million
MUSC	Neuroscience	3	\$3 million
MUSC/USC/CoC	Marine Genomics	3**	\$4 million
Total Awarded in 2002-2003		14	\$30 million
Funding Year 2003-2004			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Automotive Design & Development	1	\$5 million
Clemson	Electronic Systems Integration	1	\$3 million
Clemson	Photonic Materials	1	\$5 million
USC	Polymer Nanocomposites	1	\$3.5 million
USC	Hydrogen Economy I ***	2	\$2.5 million
MUSC/Clemson/USC	Regenerative Medicine	3	\$5 million
MUSC/USC	Translational Cancer Therapeutics	2	\$5 million
Total Awarded in 2003-2004		11	\$29 million
Funding Year 2004-2005			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Restoration [WITHDRAWN]	—	[\$3 million]
Clemson	Electron Imaging [WITHDRAWN]	—	[\$5 million]
USC	Catalysis for Renewable Fuels	1	\$3 million
USC	Hydrogen Economy II***	[See 03-04.]	\$2.5 million
USC/Coastal Carolina	Tourism & Economic Development	1	\$2 million
MUSC	Gastrointestinal Cancer Diagnostics	2††	\$5 million
MUSC/USC	Cancer Drug Discovery	4	\$5 million
MUSC	Vision Science†	2	\$4.5 million
Total Awarded in 2004-2005		10	\$22 million

* Revised to three chairs by act of the SmartState Review Board on January 12, 2009.

** Revised to three chairs by act of the SmartState Review Board on February 23, 2010.

*** The Hydrogen Economy Center of Economic Excellence was approved during 2003-2004. Funding for one half of this Center was provided in 2003-04, the other half in 2004-2005.

† Revised to two chairs and relinquished USC as a collaborative partner by act of the SmartState Review Board on February 11, 2014.

†† Increased from one to two by act of the SmartState Review Board on September 8, 2008.

Funding Year 2005-2006			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Supply Chain Optimization & Logistics	1	\$2 million
Clemson	Urban Ecology and Restoration	1	\$2 million
Clemson	Advanced Fiber-Based Materials	1	\$4 million
Clemson	Molecular Nutrition [WITHDRAWN]	—	[\$2 million]
USC	Solid Oxide Fuel Cells	1	\$3 million
USC/MUSC	Childhood Neurotherapeutics	3	\$5 million
MUSC	Molecular Proteomics in Cardiovascular Disease & Prevention	2	\$5 million
MUSC/USC	Clinical Effectiveness & Patient Safety*	3	\$5 million
Total Awarded in 2005-2006		12	\$26 million
Funding Year 2006-2007			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson/MUSC	Health Facilities Design & Testing**	2	\$2 million
USC	Rehabilitation and Reconstruction Science	1	\$5 million
USC	Strategic Approaches to the Generation of Electricity	1	\$5 million
USC/MUSC/Clemson	Healthcare Quality	2	\$5 million
USC/Clemson	Senior SMART™ Center ***	3	\$5 million
MUSC	Tobacco-Related Malignancy	2	\$5 million
MUSC/USC	Stroke	3	\$5 million
Total Awarded in 2006-2007		14	\$32 million

*On September 9, 2008, the SmartState Review Board approved a revision to this proposal which relinquished Clemson University as a collaborative partner and transferred the Chair at Clemson to MUSC.

** The state award total for this Center was revised from \$5 million to \$2 million by the SmartState Review Board on June 11, 2012.

*** The SeniorSMART Center of Economic Excellence was approved in 2007-2008. Funding was provided from 2006-2007 dollars.

SC Centers of Economic Excellence Funded Proposals (continued)

Funding Year 2007-2008			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Optoelectronics	1	\$2 million
Clemson	CyberInstitute	1	\$2 million
USC	Environmental Nanoscience and Risk	1	\$3 million
USC	Nuclear Science and Energy	1	\$3 million
MUSC	Renal Disease Biomarker	2	\$5 million
MUSC/Clemson	Cancer Stem Cell Biology	2	\$5 million
MUSC/USC/Clemson	Advanced Tissue Biofabrication	3	\$5 million
MUSC/USC/SCSU	Cancer Disparities*	3	\$3.6 million
MUSC/USC	Medication Safety & Efficacy*	1	\$2 million
Total Awarded in 2007-2008		15	\$30.6 million
Funding Year 2008-2009			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Tissue Systems Characterization [WITHDRAWN]	—	[\$3 million]
USC	General Atomics Center for Development of Transformational Nuclear Technologies	1	\$3 million
USC/MUSC	Healthful Lifestyles**	2	\$3 million
MUSC	Lipidomics, Pathobiology and Therapy	2	\$5 million
Total Awarded in 2008-2009		5	\$11 million
Funding Year 2009-2010			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Sustainable Development	1	\$4 million
USC	Data Analysis	1	\$2 million
MUSC	Inflammation and Fibrosis Research	2	\$5 million
Total Awarded in 2009-2010		4	\$11 million

* The Cancer Disparities Center of Economic Excellence and the Medication Safety & Efficacy Center of Economic Excellence were approved in 2008-2009. Funding was provided from 2007-2008 dollars.

** The Healthful Lifestyles Center of Economic Excellence was approved in 2009-2010 with funding from 2008-2009 dollars.

SC Centers of Economic Excellence Funded Proposals (continued)

Funding Year 2012-2013			
Institution (fiscal institution first)	Proposal Title	Endowed Chairs	Proposal Amount
Clemson	Smart Grid Technology	1	\$2 million
USC	Multiphysics of Heterogeneous Engineered Functional Materials and structures	1	\$2 million
MUSC	Translational Biomedical Informatics	1	\$2 million
Total Awarded in 2012-2013		3	\$6 million

Program Totals¹	
TOTAL LOTTERY APPROPRIATIONS (2003-2008)	\$180 million
ACCRUED PROGRAM INTEREST USED FOR ADDITIONAL AWARDS * * As permitted by S.C. 2-75-30(A).	\$17.6 million
TOTAL FUNDS AWARDED (2003-2013)	\$197.6 million

Research Institution Totals				
Institution	Centers Awarded	Chairs Created	Chairs Appointed (Remaining to be Apptd)	State Funds Drawn
Clemson University	13	16	6 (10)	\$43,000,000
University of South Carolina	18	30	18 (12)	\$62,055,479
Medical University of South Carolina	20	42	20 (22)	\$83,649,678
TOTALS	51	88	44 (44)	\$188,705,157

¹Program totals are as of fiscal year end June 30, 2014. For Research Institution Totals, Centers Awarded and State Funds Drawn for each institution are tallied on the fiscal agent in cases of joint proposals. Chairs are tallied based on the assigned institution. For updated information on Centers and program totals, contact CHE or see www.smartstaesc.org.

INDEPENDENT AUDITOR'S REPORT

To the Review Board
South Carolina Centers of Economic Excellence
Columbia, South Carolina

We have audited the statements of program revenues and expenditures of the South Carolina Centers of Economic Excellence (the Program) for the year ended June 30, 2014, as listed in the index. These financial statements are the responsibility of the Program's management. Our responsibility is to express an opinion on these financial statements based on our audit.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial presentation. We believe that our audit provides a reasonable basis for our opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the program revenues and expenditures of the South Carolina Centers of Economic Excellence for the year ended June 30, 2014, in conformity with accounting principles generally accepted in the United States of America.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued a report dated October 31, 2014, on our consideration of the Program's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

Other Matter

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 2 through 9 be presented to supplement the basic financial statements. Such information, although not a required part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Derrick, Stubbs & Stith, LLP

October 31, 2014

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
PROGRAM REVENUES AND EXPENDITURES - CONSOLIDATED SUMMARY
YEAR ENDING JUNE 30, 2014**

	Clemson University				Medical University of South Carolina					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 2,000,000	\$ -	\$ -	\$ -	\$ 2,000,000	\$ 3,644,398	\$ -	\$ -	\$ -	\$ 3,644,398
Non-state matching funds	-	2,056,518	-	-	2,056,518	-	1,383,814	3,045,603	11,483	4,440,900
Total contribution revenue	2,000,000	2,056,518	-	-	4,056,518	3,644,398	1,383,814	3,045,603	11,483	8,085,298
Investment Income										
Realized gain (loss)	-	-	-	1,538,940	1,538,940	-	-	-	4,692,551	4,692,551
Unrealized gain (loss)	-	-	-	10,382,051	10,382,051	-	-	-	10,840,402	10,840,402
Endowment income	-	-	-	437,084	437,084	-	-	-	1,912,727	1,912,727
Total investment income (loss)	-	-	-	12,358,075	12,358,075	-	-	-	17,445,680	17,445,680
Total revenue	2,000,000	2,056,518	-	12,358,075	16,414,593	3,644,398	1,383,814	3,045,603	17,457,163	25,530,978
Expenditures										
Personal services	-	-	-	814,087	814,087	-	-	478,499	1,294,481	1,772,980
Fringe	-	-	-	209,738	209,738	-	-	136,726	302,078	438,804
Travel	-	-	-	88,631	88,631	-	-	17,010	45,757	62,767
Supplies	-	-	-	43,679	43,679	-	-	26,024	6,556	32,580
Contractual	-	-	-	-	-	-	-	4,061	30,562	34,623
Tuition assistance	-	-	-	44,667	44,667	-	-	-	-	-
Fixed charges	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	12,061	1,590,982	1,603,043
Other	-	-	-	230,020	230,020	-	-	182,775	36,853	219,628
Facilities	-	-	-	30,000	30,000	-	-	582	-	582
Equipment	-	-	440,729	184,489	625,218	-	-	27,102	-	27,102
Total expenditures	-	-	440,729	1,645,311	2,086,040	-	-	884,840	3,307,269	4,192,109
Program net income (loss)	2,000,000	2,056,518	(440,729)	10,712,764	14,328,553	3,644,398	1,383,814	2,160,763	14,149,894	21,338,869
Transfers	-	-	-	-	-	-	-	2,248,728	(2,248,728)	-
Cumulative Program Net Income										
Beginning	41,000,000	33,420,936	688,591	14,845,266	89,954,793	79,843,599	31,842,540	9,790,839	16,669,360	138,146,338
Ending	\$ 43,000,000	\$ 35,477,454	\$ 247,862	\$ 25,558,030	\$ 104,283,346	\$ 83,487,997	\$ 33,226,354	\$ 14,200,330	\$ 28,570,526	\$ 159,485,207

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
PROGRAM REVENUES AND EXPENDITURES - CONSOLIDATED SUMMARY
YEAR ENDING JUNE 30, 2014**

	University of South Carolina					Total - Consolidated Summary				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 3,224,926	\$ -	\$ -	\$ -	\$ 3,224,926	\$ 8,869,324	\$ -	\$ -	\$ -	\$ 8,869,324
Non-state matching funds	-	5,086,384	1,395,817	5,000	6,487,201	-	8,526,716	4,441,420	16,483	12,984,619
Total contribution revenue	3,224,926	5,086,384	1,395,817	5,000	9,712,127	8,869,324	8,526,716	4,441,420	16,483	21,853,943
Investment Income										
Realized gain (loss)	-	-	-	1,056,770	1,056,770	-	-	-	7,288,261	7,288,261
Unrealized gain (loss)	-	-	-	2,596,075	2,596,075	-	-	-	23,818,528	23,818,528
Endowment income	-	-	-	3,095,345	3,095,345	-	-	-	5,445,156	5,445,156
Total investment income (loss)	-	-	-	6,748,190	6,748,190	-	-	-	36,551,945	36,551,945
Total revenue	3,224,926	5,086,384	1,395,817	6,753,190	16,460,317	8,869,324	8,526,716	4,441,420	36,568,428	58,405,888
Expenditures										
Personal services	-	-	1,092,527	1,664,286	2,756,813	-	-	1,571,026	3,772,854	5,343,880
Fringe	-	-	248,091	260,703	508,794	-	-	384,817	772,519	1,157,336
Travel	-	-	33,322	94,054	127,376	-	-	50,332	228,442	278,774
Supplies	-	-	140,578	188,462	329,040	-	-	166,602	238,697	405,299
Contractual	-	-	69,168	252,651	321,819	-	-	73,229	283,213	356,442
Tuition assistance	-	-	-	-	-	-	-	-	44,667	44,667
Fixed charges	-	-	10,524	10,467	20,991	-	-	10,524	10,467	20,991
Administrative fees	-	-	34	373,612	373,646	-	-	12,095	1,964,594	1,976,689
Other	-	-	52,783	115,138	167,921	-	-	235,558	382,011	617,569
Facilities	-	-	-	-	-	-	-	582	30,000	30,582
Equipment	-	-	46,645	111,861	158,506	-	-	514,476	296,350	810,826
Total expenditures	-	-	1,693,672	3,071,234	4,764,906	-	-	3,019,241	8,023,814	11,043,055
Program net income (loss)	3,224,926	5,086,384	(297,855)	3,681,956	11,695,411	8,869,324	8,526,716	1,422,179	28,544,614	47,362,833
Transfers	-	2,060,527	(2,054,048)	-	6,479	-	2,060,527	194,680	(2,248,728)	6,479
Cumulative Program Net Income										
Beginning	58,830,553	23,028,933	3,127,307	10,427,625	95,414,418	179,674,152	88,292,409	13,606,737	41,942,251	323,515,549
Ending	\$ 62,055,479	\$ 30,175,844	\$ 775,404	\$ 14,109,581	\$ 107,116,308	\$ 188,543,476	\$ 98,879,652	\$ 15,223,596	\$ 68,238,137	\$ 370,884,861

See notes to financial statements.

PROGRAM REVENUES AND EXPENDITURES

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See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Automotive Systems Integration				Optical Materials					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	221,539	221,539	-	-	-	158,943	158,943
Unrealized gain (loss)	-	-	-	1,450,096	1,450,096	-	-	-	1,108,634	1,108,634
Endowment income	-	-	-	53,450	53,450	-	-	-	39,997	39,997
Total investment income (loss)	-	-	-	1,725,085	1,725,085	-	-	-	1,307,574	1,307,574
Total revenue	-	-	-	1,725,085	1,725,085	-	-	-	1,307,574	1,307,574
Expenditures										
Personal services	-	-	-	233,636	233,636	-	-	-	-	-
Fringe	-	-	-	63,224	63,224	-	-	-	-	-
Travel	-	-	-	42,838	42,838	-	-	-	-	-
Supplies	-	-	-	16,075	16,075	-	-	-	-	-
Tuition assistance	-	-	-	7,942	7,942	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	53,394	53,394	-	-	-	-	-
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	140,393	140,393	-	-	-	-	-
Total expenses	-	-	-	557,502	557,502	-	-	-	-	-
Program net income (loss)	-	-	-	1,167,583	1,167,583	-	-	-	1,307,574	1,307,574
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	5,000,000	5,000,000	114,921	2,717,347	12,832,268	5,000,000	3,050,852	14,384	1,830,601	9,895,837
Ending	\$ 5,000,000	\$ 5,000,000	\$ 114,921	\$ 3,884,930	\$ 13,999,851	\$ 5,000,000	\$ 3,050,852	\$ 14,384	\$ 3,138,175	\$ 11,203,411

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Vehicle Electronic Systems				Supply Chain Optimization and Logistics					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$	-	\$	-	\$	-	\$	-	\$	\$
Non-state matching funds		-	-	-	-	-	-	-	-	-
Total contribution revenue		-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	101,967	101,967	-	-	-	81,219	81,219
Unrealized gain (loss)	-	-	-	695,122	695,122	-	-	-	530,220	530,220
Endowment income	-	-	-	25,215	25,215	-	-	-	19,076	19,076
Total investment income (loss)		-	-	822,304	822,304	-	-	-	630,515	630,515
Total revenue		-	-	822,304	822,304	-	-	-	630,515	630,515
Expenditures										
Personal services	-	-	-	66,573	66,573	-	-	-	-	-
Fringe	-	-	-	12,605	12,605	-	-	-	-	-
Travel	-	-	-	11,823	11,823	-	-	-	-	-
Supplies	-	-	-	9,985	9,985	-	-	-	-	-
Tuition assistance	-	-	-	5,850	5,850	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	3,897	3,897	-	-	-	-	-
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	1,939	1,939	-	-	-	-	-
Total expenses		-	-	112,672	112,672	-	-	-	-	-
Program net income (loss)		-	-	709,632	709,632	-	-	-	630,515	630,515
Transfers		-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	3,000,000	2,000,000	-	895,645	5,895,645	2,000,000	2,000,000	-	533,363	4,533,363
Ending	\$ 3,000,000	\$ 2,000,000	\$ -	\$ 1,605,277	\$ 6,605,277	\$ 2,000,000	\$ 2,000,000	\$ -	\$ 1,163,878	\$ 5,163,878

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Urban Ecology and Restoration				Advanced Fiber-Based Materials					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	81,142	81,142	-	-	-	150,548	150,548
Unrealized gain (loss)	-	-	-	525,088	525,088	-	-	-	998,491	998,491
Endowment income	-	-	-	18,924	18,924	-	-	-	40,534	40,534
Total investment income (loss)	-	-	-	625,154	625,154	-	-	-	1,189,573	1,189,573
Total revenue	-	-	-	625,154	625,154	-	-	-	1,189,573	1,189,573
Expenditures										
Personal services	-	-	-	-	-	-	-	-	92,949	92,949
Fringe	-	-	-	-	-	-	-	-	26,328	26,328
Travel	-	-	-	-	-	-	-	-	2,334	2,334
Supplies	-	-	-	-	-	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	9,476	9,476
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenses	-	-	-	-	-	-	-	-	131,087	131,087
Program net income (loss)	-	-	-	625,154	625,154	-	-	-	1,058,486	1,058,486
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	2,000,000	2,000,000	-	514,951	4,514,951	4,000,000	3,482,500	59,286	1,583,954	9,125,740
Ending	\$ 2,000,000	\$ 2,000,000	\$ -	\$ 1,140,105	\$ 5,140,105	\$ 4,000,000	\$ 3,482,500	\$ 59,286	\$ 2,642,440	\$ 10,184,226

See notes to financial statements.

PROGRAM REVENUES AND EXPENDITURES

	Health Facilities Design and Testing				Optoelectronics					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	(400)	-	-	(400)
Total contribution revenue	-	-	-	-	-	-	(400)	-	-	(400)
Investment Income										
Realized gain (loss)	-	-	-	82,658	82,658	-	-	-	83,160	83,160
Unrealized gain (loss)	-	-	-	664,503	664,503	-	-	-	539,568	539,568
Endowment income	-	-	-	23,355	23,355	-	-	-	57,291	57,291
Total investment income (loss)	-	-	-	770,516	770,516	-	-	-	680,019	680,019
Total revenue	-	-	-	770,516	770,516	-	(400)	-	680,019	679,619
Expenditures										
Personal services	-	-	-	-	-	-	-	-	4,125	4,125
Fringe	-	-	-	-	-	-	-	-	895	895
Travel	-	-	-	1,961	1,961	-	-	-	3,694	3,694
Supplies	-	-	-	-	-	-	-	-	710	710
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	120,720	120,720	-	-	-	-	-
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenses	-	-	-	122,681	122,681	-	-	-	9,424	9,424
Program net income (loss)	-	-	-	647,835	647,835	-	(400)	-	670,595	670,195
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	2,000,000	2,000,000	-	1,306,846	5,306,846	2,000,000	2,007,299	-	709,919	4,717,218
Ending	\$ 2,000,000	\$ 2,000,000	\$ -	\$ 1,954,681	\$ 5,954,681	\$ 2,000,000	\$ 2,006,899	\$ -	\$ 1,380,514	\$ 5,387,413

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Cyber-Institute			Sustainable Development			
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue							
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	(9,242)	-	-	-	-	(9,242)
Total contribution revenue	-	(9,242)	-	-	-	-	(9,242)
Investment Income							
Realized gain (loss)	-	-	-	60,014	-	141,497	141,497
Unrealized gain (loss)	-	-	-	416,928	-	953,672	953,672
Endowment income	-	-	-	13,895	-	34,288	34,288
Total investment income (loss)	-	-	-	490,837	-	1,129,457	1,129,457
Total revenue	-	(9,242)	-	490,837	-	1,129,457	1,195,617
Expenditures							
Personal services	-	-	-	-	-	-	-
Fringe	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
Facilities	-	-	-	-	-	-	-
Equipment	-	-	440,729	-	-	-	-
Total expenses	-	-	440,729	-	-	-	-
Program net income (loss)	-	(9,242)	(440,729)	490,837	66,160	1,129,457	1,195,617
Transfers	-	-	-	-	-	-	-
Cumulative Program Net Income							
Beginning	2,000,000	1,088,996	500,000	379,262	2,945,298	1,039,289	7,984,587
Ending	\$ 2,000,000	\$ 1,079,754	\$ 59,271	\$ 870,099	\$ 3,011,458	\$ 2,168,746	\$ 9,180,204

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Duke Energy Smart Grid				Total - Clemson University					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 2,000,000	\$ -	\$ -	\$ -	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ 2,000,000
Non-state matching funds	-	2,000,000	-	-	2,000,000	-	2,056,518	-	-	2,056,518
Total contribution revenue	2,000,000	2,000,000	-	-	4,000,000	2,000,000	2,056,518	-	-	4,056,518
Investment Income										
Realized gain (loss)	-	-	-	10,683	10,683	-	-	-	1,538,940	1,538,940
Unrealized gain (loss)	-	-	-	56,329	56,329	-	-	-	10,382,051	10,382,051
Endowment income	-	-	-	483	483	-	-	-	437,084	437,084
Total investment income (loss)	-	-	-	67,495	67,495	-	-	-	12,358,075	12,358,075
Total revenue	2,000,000	2,000,000	-	67,495	4,067,495	2,000,000	2,056,518	-	12,358,075	16,414,593
Expenditures										
Personal services	-	-	-	-	-	-	-	-	814,087	814,087
Fringe	-	-	-	-	-	-	-	-	209,738	209,738
Travel	-	-	-	-	-	-	-	-	88,631	88,631
Supplies	-	-	-	-	-	-	-	-	43,679	43,679
Tuition assistance	-	-	-	-	-	-	-	-	44,667	44,667
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	230,020	230,020
Facilities	-	-	-	-	-	-	-	-	30,000	30,000
Equipment	-	-	-	-	-	-	-	440,729	184,489	625,218
Total expenses	-	-	-	-	-	-	-	440,729	1,645,311	2,086,040
Program net income (loss)	2,000,000	2,000,000	-	67,495	4,067,495	2,000,000	2,056,518	(440,729)	10,712,764	14,328,553
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income Beginning	-	-	-	-	-	41,000,000	33,420,936	688,591	14,845,266	89,954,793
Ending	\$ 2,000,000	\$ 2,000,000	\$ -	\$ 67,495	\$ 4,067,495	\$ 43,000,000	\$ 35,477,454	\$ 247,862	\$ 25,558,030	\$ 104,283,346

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Proteomics			Neurosciences			
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue							
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	128,768	-	128,768
Total contribution revenue	-	-	-	-	128,768	-	128,768
Investment Income							
Realized gain (loss)	-	-	-	219,008	-	167,519	167,519
Unrealized gain (loss)	-	-	-	492,071	-	377,080	377,080
Endowment income	-	-	-	51,041	-	39,253	39,253
Total investment income (loss)	-	-	-	762,120	-	583,852	583,852
Total revenue	-	-	-	762,120	128,768	583,852	712,620
Expenditures							
Personal services	-	-	-	42,240	-	-	95,839
Fringe	-	-	-	13,261	-	-	31,627
Travel	-	-	-	25,134	-	-	-
Supplies	-	-	-	5,764	-	-	-
Contractual	-	-	-	-	-	-	-
Administrative fees	-	-	-	60,654	-	46,369	46,369
Other	-	-	-	14,183	-	-	-
Facilities	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-
Total expenditures	-	-	-	161,236	127,466	46,369	173,835
Program net income (loss)	-	-	-	600,884	-	537,483	538,785
Transfers	-	-	-	-	165,419	(165,419)	-
Cumulative Program Net Income							
Beginning	4,000,000	1,254,266	791,789	850,021	702,021	760,963	5,363,334
Ending	\$ 4,000,000	\$ 1,254,266	\$ 791,789	\$ 1,450,905	\$ 868,742	\$ 1,133,027	\$ 5,902,119

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Marine Genomics				Regenerative Medicine					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$	-	\$	-	\$	-	\$	-	\$	-
Non-state matching funds		-	-	-	-	-	-	-	-	-
Total contribution revenue		-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	155,050	155,050	-	-	-	244,001	244,001
Unrealized gain (loss)	-	-	-	459,138	459,138	-	-	-	806,884	806,884
Endowment income	-	-	-	216,096	216,096	-	-	-	61,109	61,109
Total investment income (loss)	-	-	-	830,284	830,284	-	-	-	1,111,994	1,111,994
Total revenue	-	-	-	830,284	830,284	-	-	-	1,111,994	1,111,994
Expenditures										
Personal services	-	-	98,971	191,502	290,473	-	-	64,539	-	64,539
Fringe	-	-	19,927	-	19,927	-	-	14,680	-	14,680
Travel	-	-	3,284	-	3,284	-	-	810	-	810
Supplies	-	-	1,959	-	1,959	-	-	6,482	-	6,482
Contractual	-	-	3,579	-	3,579	-	-	(2,500)	-	(2,500)
Administrative fees	-	-	-	70,172	70,172	-	-	126	47,637	47,763
Other	-	-	1,399	-	1,399	-	-	3,285	-	3,285
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	14,900	-	14,900
Total expenditures	-	-	129,119	261,674	390,793	-	-	102,322	47,637	149,959
Program net income (loss)	-	-	(129,119)	568,610	439,491	-	-	(102,322)	1,064,357	962,035
Transfers	-	-	166,553	(166,553)	-	-	-	259,784	(259,784)	-
Cumulative Program Net Income										
Beginning	4,000,000	1,500,000	215,573	1,212,432	6,928,005	5,000,000	2,000,000	769,109	1,068,124	8,837,233
Ending	\$ 4,000,000	\$ 1,500,000	\$ 253,007	\$ 1,614,489	\$ 7,367,496	\$ 5,000,000	\$ 2,000,000	\$ 926,571	\$ 1,872,697	\$ 9,799,268

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Translational Cancer Therapeutics				Drug Discovery in Cancer					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	301,366	301,366	-	-	-	274,617	274,617
Unrealized gain (loss)	-	-	-	677,530	677,530	-	-	-	613,482	613,482
Endowment income	-	-	-	70,201	70,201	-	-	-	63,908	63,908
Total investment income (loss)	-	-	-	1,049,097	1,049,097	-	-	-	952,007	952,007
Total revenue	-	-	-	1,049,097	1,049,097	-	-	-	952,007	952,007
Expenditures										
Personal services	-	-	-	239,870	239,870	-	-	-	133,220	133,220
Fringe	-	-	-	55,616	55,616	-	-	-	43,457	43,457
Travel	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	600	600
Administrative fees	-	-	-	83,423	83,423	-	-	-	75,395	75,395
Other	-	-	-	-	-	-	-	-	15,425	15,425
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	-	378,909	378,909	-	-	-	268,097	268,097
Program net income (loss)	-	-	-	670,188	670,188	-	-	-	683,910	683,910
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	5,000,000	1,998,095	-	1,294,025	8,292,120	5,000,000	1,604,510	215,219	818,840	7,638,569
Ending	\$ 5,000,000	\$ 1,998,095	\$ -	\$ 1,964,213	\$ 8,962,308	\$ 5,000,000	\$ 1,604,510	\$ 215,219	\$ 1,502,750	\$ 8,322,479

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Gastrointestinal Cancer Diagnostics				Vision Science					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	296,659	296,659	-	-	-	265,572	265,572
Unrealized gain (loss)	-	-	-	671,874	671,874	-	-	-	596,515	596,515
Endowment income	-	-	-	69,931	69,931	-	-	-	62,401	62,401
Total investment income (loss)	-	-	-	1,038,464	1,038,464	-	-	-	924,488	924,488
Total revenue	-	-	-	1,038,464	1,038,464	-	-	-	924,488	924,488
Expenditures										
Personal services	-	-	164,360	-	164,360	-	-	-	-	-
Fringe	-	-	53,910	-	53,910	-	-	-	-	-
Travel	-	-	3,222	-	3,222	-	-	-	-	-
Supplies	-	-	112	-	112	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	82,839	82,839	-	-	2,304	73,751	76,055
Other	-	-	2,293	-	2,293	-	-	182	9	191
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	223,897	82,839	306,736	-	-	2,486	73,760	76,246
Program net income (loss)	-	-	(223,897)	955,625	731,728	-	-	(2,486)	850,728	848,242
Transfers	-	-	322,154	(322,154)	-	-	-	279,753	(279,753)	-
Cumulative Program Net Income										
Beginning	5,000,000	2,000,000	459,639	1,276,013	8,735,652	4,500,000	1,883,774	505,720	911,573	7,801,067
Ending	\$ 5,000,000	\$ 2,000,000	\$ 557,896	\$ 1,909,484	\$ 9,467,380	\$ 4,500,000	\$ 1,883,774	\$ 782,987	\$ 1,482,548	\$ 8,649,309

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Clinical Effectiveness and Patient Safety				Molecular Proteomics in Cardiovascular Disease and Prevention					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	1,096	-	-	1,096
Total contribution revenue	-	-	-	-	-	-	1,096	-	-	1,096
Investment Income										
Realized gain (loss)	-	-	-	296,097	296,097	-	-	-	331,430	331,430
Unrealized gain (loss)	-	-	-	662,036	662,036	-	-	-	742,877	742,877
Endowment income	-	-	-	68,916	68,916	-	-	-	77,242	77,242
Total investment income (loss)	-	-	-	1,027,049	1,027,049	-	-	-	1,151,549	1,151,549
Total revenue	-	-	-	1,027,049	1,027,049	-	1,096	-	1,151,549	1,152,645
Expenditures										
Personal services	-	-	-	322,053	322,053	-	-	-	145,850	145,850
Fringe	-	-	-	85,982	85,982	-	-	-	47,658	47,658
Travel	-	-	-	10,603	10,603	-	-	-	2,367	2,367
Supplies	-	-	-	792	792	-	-	-	-	-
Contractual	-	-	-	12,102	12,102	-	-	-	-	-
Administrative fees	-	-	-	82,451	82,451	-	-	1,595	91,744	93,339
Other	-	-	-	252	252	-	-	-	3,611	3,611
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	-	514,235	514,235	-	-	1,595	291,230	292,825
Program net income (loss)	-	-	-	512,814	512,814	-	1,096	(1,595)	860,319	859,820
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	5,000,000	2,000,000	-	1,048,102	8,048,102	5,000,000	3,515,709	1,290,200	1,219,099	11,025,008
Ending	\$ 5,000,000	\$ 2,000,000	\$ -	\$ 1,560,916	\$ 8,560,916	\$ 5,000,000	\$ 3,516,805	\$ 1,288,605	\$ 2,079,418	\$ 11,884,828

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Tobacco-Related Malignancy				Stroke					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	100	-	100
Total contribution revenue	-	-	-	-	-	-	-	100	-	100
Investment Income										
Realized gain (loss)	-	-	-	309,802	309,802	-	-	-	324,778	324,778
Unrealized gain (loss)	-	-	-	701,789	701,789	-	-	-	728,785	728,785
Endowment income	-	-	-	73,039	73,039	-	-	-	75,858	75,858
Total investment income (loss)	-	-	-	1,084,630	1,084,630	-	-	-	1,129,421	1,129,421
Total revenue	-	-	-	1,084,630	1,084,630	-	-	100	1,129,421	1,129,521
Expenditures										
Personal services	-	-	-	-	-	-	-	-	122,051	122,051
Fringe	-	-	-	-	-	-	-	-	33,812	33,812
Travel	-	-	433	-	433	-	-	-	2,949	2,949
Supplies	-	-	(43)	-	(43)	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	17,860	17,860
Administrative fees	-	-	2,384	86,534	88,918	-	-	-	375,738	375,738
Other	-	-	-	-	-	-	-	50,000	-	50,000
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	2,774	86,534	89,308	-	-	50,000	552,410	602,410
Program net income (loss)	-	-	(2,774)	998,096	995,322	-	-	(49,900)	577,011	527,111
Transfers	-	-	336,503	(336,503)	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	5,000,000	1,671,812	1,247,391	1,746,216	9,665,419	5,000,000	2,500,000	581,084	1,242,098	9,323,182
Ending	\$ 5,000,000	\$ 1,671,812	\$ 1,581,120	\$ 2,407,809	\$ 10,660,741	\$ 5,000,000	\$ 2,500,000	\$ 531,184	\$ 1,819,109	\$ 9,850,293

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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	Renal Disease Biomarker				Cancer Stem Cell Biology and Therapy					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 262,432	\$ -	\$ 175,497	\$ -	\$ 437,929	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	10,885	180,000	-	190,885	-	5,000	-	11,483	16,483
Total contribution revenue	262,432	10,885	355,497	-	628,814	-	5,000	-	11,483	16,483
Investment Income										
Realized gain (loss)	-	-	-	244,614	244,614	-	-	-	278,965	278,965
Unrealized gain (loss)	-	-	-	549,902	549,902	-	-	-	629,958	629,958
Endowment income	-	-	-	57,011	57,011	-	-	-	65,597	65,597
Total investment income (loss)	-	-	-	851,527	851,527	-	-	-	974,520	974,520
Total revenue	262,432	10,885	355,497	851,527	1,480,341	-	5,000	-	986,003	991,003
Expenditures										
Personal services	-	-	-	37,695	37,695	-	-	12,454	-	12,454
Fringe	-	-	-	12,278	12,278	-	-	1,681	-	1,681
Travel	-	-	-	116	116	-	-	982	-	982
Supplies	-	-	-	-	-	-	-	15,610	-	15,610
Contractual	-	-	-	-	-	-	-	532	-	532
Administrative fees	-	-	-	76,450	76,450	-	-	4,900	78,097	82,997
Other	-	-	-	487	487	-	-	118,768	386	119,154
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	12,202	-	12,202
Total expenditures	-	-	-	127,026	127,026	-	-	167,129	78,483	245,612
Program net income (loss)	262,432	10,885	355,497	724,501	1,353,315	-	5,000	(167,129)	907,520	745,391
Transfers	-	-	-	-	-	-	-	536,368	(536,368)	-
Cumulative Program Net Income										
Beginning	4,558,101	1,392,577	767,765	482,912	7,201,355	5,000,000	1,520,536	1,549,906	861,025	8,931,467
Ending	\$ 4,820,533	\$ 1,403,462	\$ 1,123,262	\$ 1,207,413	\$ 8,554,670	\$ 5,000,000	\$ 1,525,536	\$ 1,919,145	\$ 1,232,177	\$ 9,676,858

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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	Advanced Tissue Biofabrication				Medication Safety and Efficacy					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	250,000	-	-	-	250,000
Investment Income										
Realized gain (loss)	-	-	-	223,440	223,440	-	-	-	88,563	88,563
Unrealized gain (loss)	-	-	-	491,243	491,243	-	-	-	194,542	194,542
Endowment income	-	-	-	688,943	688,943	-	-	-	20,236	20,236
Total investment income (loss)	-	-	-	1,403,626	1,403,626	-	-	-	303,341	303,341
Total revenue	-	-	-	1,403,626	1,403,626	250,000	-	-	303,341	553,341
Expenditures										
Personal services	-	-	-	-	-	-	-	-	60,000	60,000
Fringe	-	-	-	-	-	-	-	-	10,014	10,014
Travel	-	-	-	-	-	-	-	-	4,588	4,588
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	60,195	60,195	-	-	-	23,644	23,644
Other	-	-	-	-	-	-	-	-	-	-
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	-	60,195	60,195	-	-	-	98,246	98,246
Program net income (loss)	-	-	-	1,343,431	1,343,431	250,000	-	-	205,095	455,095
Transfers	-	-	39,770	(39,770)	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	4,060,571	900,000	75,000	547,236	5,582,807	1,350,000	600,000	137,344	176,673	2,264,017
Ending	\$ 4,060,571	\$ 900,000	\$ 114,770	\$ 1,850,897	\$ 6,926,238	\$ 1,600,000	\$ 600,000	\$ 137,344	\$ 381,768	\$ 2,719,112

See notes to financial statements.

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	Prostate Cancer Disparities					Lipidomics, Pathobiology and Therapy				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	327	-	327	-	750,000	-	-	750,000
Total contribution revenue	-	-	327	-	327	-	750,000	-	-	750,000
Investment Income										
Realized gain (loss)	-	-	-	193,418	193,418	-	-	-	190,289	190,289
Unrealized gain (loss)	-	-	-	436,443	436,443	-	-	-	417,950	417,950
Endowment income	-	-	-	45,427	45,427	-	-	-	45,024	45,024
Total investment income (loss)	-	-	-	675,288	675,288	-	-	-	653,263	653,263
Total revenue	-	-	327	675,288	675,615	-	750,000	-	653,263	1,403,263
Expenditures										
Personal services	-	-	6,030	-	6,030	-	-	-	-	-
Fringe	-	-	1,972	-	1,972	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	16	53,726	53,742	-	-	-	51,919	51,919
Other	-	-	302	-	302	-	-	-	2,500	2,500
Facilities	-	-	582	-	582	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	8,902	53,726	62,628	-	-	-	54,419	54,419
Program net income (loss)	-	-	(8,575)	621,562	612,987	-	750,000	-	598,844	1,348,844
Transfers	-	-	142,424	(142,424)	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	3,600,000	1,080,000	(1,355)	418,098	5,096,743	2,901,058	1,301,075	(118,779)	388,744	4,472,098
Ending	\$ 3,600,000	\$ 1,080,000	\$ 132,494	\$ 897,236	\$ 5,709,730	\$ 2,901,058	\$ 2,051,075	\$ (118,779)	\$ 987,588	\$ 5,820,942

See notes to financial statements.

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	Inflammation and Fibrosis				Translational Biomedical Informatics					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 1,356,196	\$ -	\$ -	\$ -	\$ 1,356,196	\$ 1,600,273	\$ -	\$ -	\$ -	\$ 1,600,273
Non-state matching funds	-	16,833	1,986,408	-	2,003,241	-	600,000	750,000	-	1,350,000
Total contribution revenue	1,356,196	16,833	1,986,408	-	3,359,437	1,600,273	600,000	750,000	-	2,950,273
Investment Income										
Realized gain (loss)	-	-	-	234,051	234,051	-	-	-	53,312	53,312
Unrealized gain (loss)	-	-	-	500,566	500,566	-	-	-	89,737	89,737
Endowment income	-	-	-	52,174	52,174	-	-	-	9,320	9,320
Total investment income (loss)	-	-	-	786,791	786,791	-	-	-	152,369	152,369
Total revenue	1,356,196	16,833	1,986,408	786,791	4,146,228	1,600,273	600,000	750,000	152,369	3,102,642
Expenditures										
Personal services	-	-	36,306	-	36,306	-	-	-	-	-
Fringe	-	-	12,929	-	12,929	-	-	-	-	-
Travel	-	-	8,279	-	8,279	-	-	-	-	-
Supplies	-	-	1,904	-	1,904	-	-	-	-	-
Contractual	-	-	2,450	-	2,450	-	-	-	-	-
Administrative fees	-	-	736	61,399	62,135	-	-	-	8,845	8,845
Other	-	-	6,546	-	6,546	-	-	-	-	-
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	69,150	61,399	130,549	-	-	-	8,845	8,845
Program net income (loss)	1,356,196	16,833	1,917,258	725,392	4,015,679	1,600,273	600,000	750,000	143,524	3,093,797
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	2,873,869	2,219,836	603,213	347,166	6,044,084	-	-	-	-	-
Ending	\$ 4,230,065	\$ 2,236,669	\$ 2,520,471	\$ 1,072,558	\$ 10,059,763	\$ 1,600,273	\$ 600,000	\$ 750,000	\$ 143,524	\$ 3,093,797

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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	Total - Medical University of South Carolina				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue					
State funds	\$ 3,468,901	\$ -	\$ 175,497	\$ -	\$ 3,644,398
Non-state matching funds	-	1,383,814	3,045,603	11,483	4,440,900
Total contribution revenue	3,468,901	1,383,814	3,221,100	11,483	8,085,298
Investment Income					
Realized gain (loss)	-	-	-	4,692,551	4,692,551
Unrealized gain (loss)	-	-	-	10,840,402	10,840,402
Endowment income	-	-	-	1,912,727	1,912,727
Total investment income (loss)	-	-	-	17,445,680	17,445,680
Total revenue	3,468,901	1,383,814	3,221,100	17,457,163	25,530,978
Expenditures					
Personal services	-	-	478,499	1,294,481	1,772,980
Fringe	-	-	136,726	302,078	438,804
Travel	-	-	17,010	45,757	62,767
Supplies	-	-	26,024	6,556	32,580
Contractual	-	-	4,061	30,562	34,623
Administrative fees	-	-	12,061	1,590,982	1,603,043
Other	-	-	182,775	36,853	219,628
Facilities	-	-	582	-	582
Equipment	-	-	27,102	-	27,102
Total expenditures	-	-	884,840	3,307,269	4,192,109
Program net income (loss)	3,468,901	1,383,814	2,336,260	14,149,894	21,338,869
Transfers	-	-	2,248,728	(2,248,728)	-
Cumulative Program Net Income					
Beginning	79,843,599	31,842,540	9,790,839	16,669,360	138,146,338
Ending	\$ 83,312,500	\$ 33,226,354	\$ 14,375,827	\$ 28,570,526	\$ 159,485,207

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
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	Nanostructures				Brain Imaging					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$	-	\$	-	\$	-	\$	-	\$	-
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	64,590	64,590	-	-	-	-	-
Unrealized gain (loss)	-	-	-	196,181	196,181	-	-	-	81,273	81,273
Endowment income	-	-	-	234,287	234,287	-	-	-	494,655	494,655
Total investment income (loss)	-	-	-	495,058	495,058	-	-	-	575,928	575,928
Total revenue	-	-	-	495,058	495,058	-	-	-	575,928	575,928
Expenditures										
Personal services	-	-	-	126,476	126,476	-	-	-	221,940	221,940
Fringe	-	-	-	11,440	11,440	-	-	-	47,161	47,161
Travel	-	-	-	19,666	19,666	-	-	-	1,181	1,181
Supplies	-	-	-	49,760	49,760	-	-	-	-	-
Contractual	-	-	-	19,854	19,854	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	300	300	-	-	-	-	-
Administrative fees	-	-	-	23,913	23,913	-	-	-	30,090	30,090
Other	-	-	-	4,914	4,914	-	-	-	-	-
Equipment	-	-	-	27,946	27,946	-	-	-	-	-
Total expenditures	-	-	-	284,269	284,269	-	-	-	300,372	300,372
Program net income (loss)	-	-	-	210,789	210,789	-	-	-	275,556	275,556
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income										
Beginning	4,000,000	1,633,005	-	1,256,424	6,889,429	5,000,000	2,089,589	-	900,540	7,990,129
Ending	\$ 4,000,000	\$ 1,633,005	\$ -	\$ 1,467,213	\$ 7,100,218	\$ 5,000,000	\$ 2,089,589	\$ -	\$ 1,176,096	\$ 8,265,685

See notes to financial statements.

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	Polymer Nanocomposites					Hydrogen Fuel Cell Economy				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	1,384	23,000	-	24,384	-	-	-	-	-
Total contribution revenue	-	1,384	23,000	-	24,384	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	66,058	66,058	-	-	-	-	-
Unrealized gain (loss)	-	-	-	200,623	200,623	-	-	-	(4)	(4)
Endowment income	-	-	-	197,094	197,094	-	-	-	241,629	241,629
Total investment income (loss)	-	-	-	463,775	463,775	-	-	-	241,625	241,625
Total revenue	-	1,384	23,000	463,775	488,159	-	-	-	241,625	241,625
Expenditures										
Personal services	-	-	-	141,773	141,773	-	-	-	109,091	109,091
Fringe	-	-	-	16,796	16,796	-	-	-	14,005	14,005
Travel	-	-	2,006	2,038	4,044	-	-	14	-	14
Supplies	-	-	-	8,783	8,783	-	-	-	-	-
Contractual	-	-	-	19,668	19,668	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	1,969	1,969	-	-	3,969	-	3,969
Administrative fees	-	-	-	24,457	24,457	-	-	34	16,812	16,846
Other	-	-	-	19,615	19,615	-	-	-	9,678	9,678
Equipment	-	-	954	-	954	-	-	-	-	-
Total expenditures	-	-	2,960	235,099	238,059	-	-	4,017	149,586	153,603
Program net income (loss)	-	1,384	20,040	228,676	250,100	-	-	(4,017)	92,039	88,022
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income Ending	3,500,000	1,423,141	-	278,678	5,201,819	5,000,000	1,500,000	-	955,196	7,455,196
Ending	\$ 3,500,000	\$ 1,424,525	\$ 20,040	\$ 507,354	\$ 5,451,919	\$ 5,000,000	\$ 1,500,000	\$ (4,017)	\$ 1,047,235	\$ 7,543,218

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SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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	Tourism and Economic Development				Renewable Fuel Cells					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	157,844	157,844	-	-	-	60,536	60,536
Unrealized gain (loss)	-	-	-	-	-	-	-	-	183,865	183,865
Endowment income	-	-	-	110,644	110,644	-	-	-	156,043	156,043
Total investment income (loss)	-	-	-	268,488	268,488	-	-	-	400,444	400,444
Total revenue	-	-	-	268,488	268,488	-	-	-	400,444	400,444
Expenditures										
Personal services	-	-	-	229,683	229,683	-	-	-	185,105	185,105
Fringe	-	-	-	58,203	58,203	-	-	-	6,441	6,441
Travel	-	-	-	17,576	17,576	-	-	-	15,550	15,550
Supplies	-	-	-	3,544	3,544	-	-	-	14,530	14,530
Contractual	-	-	-	13,422	13,422	-	-	-	155	155
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	3,782	3,782	-	-	-	-	-
Administrative fees	-	-	-	19,240	19,240	-	-	-	22,412	22,412
Other	-	-	-	2,168	2,168	-	-	-	45,138	45,138
Equipment	-	-	-	184	184	-	-	-	-	-
Total expenditures	-	-	-	347,802	347,802	-	-	-	289,331	289,331
Program net income (loss)	-	-	-	(79,314)	(79,314)	-	-	-	111,113	111,113
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income Ending	2,000,000	1,363,600	87	832,082	4,195,769	3,000,000	1,200,000	-	723,338	4,923,338
Ending	\$ 2,000,000	\$ 1,363,600	\$ 87	\$ 752,768	\$ 4,116,455	\$ 3,000,000	\$ 1,200,000	\$ -	\$ 834,451	\$ 5,034,451

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDING JUNE 30, 2014

	Solid Oxide Fuel Cells					Childhood Neurotherapeutics				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	-	-	-	-	-	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	5,171	5,171	-	-	-	119,205	119,205
Unrealized gain (loss)	-	-	-	15,706	15,706	-	-	-	362,062	362,062
Endowment income	-	-	-	164,617	164,617	-	-	-	211,966	211,966
Total investment income (loss)	-	-	-	185,494	185,494	-	-	-	693,233	693,233
Total revenue	-	-	-	185,494	185,494	-	-	-	693,233	693,233
Expenditures										
Personal services	-	-	-	43,875	43,875	-	-	-	-	-
Fringe	-	-	-	7,485	7,485	-	-	-	-	-
Travel	-	-	-	16,710	16,710	-	-	-	-	-
Supplies	-	-	-	26,571	26,571	-	-	-	-	-
Contractual	-	-	-	38,049	38,049	-	-	-	63,595	63,595
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	12	12	-	-	-	-	-
Administrative fees	-	-	-	1,914	1,914	-	-	-	44,134	44,134
Other	-	-	-	217	217	-	-	-	22,932	22,932
Equipment	-	-	-	41,888	41,888	-	-	-	-	-
Total expenditures	-	-	-	176,721	176,721	-	-	-	130,661	130,661
Program net income (loss)	-	-	-	8,773	8,773	-	-	-	562,572	562,572
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income Ending	3,000,000	900,000	-	378,690	4,278,690	5,000,000	2,500,000	-	801,091	8,301,091
Ending	\$ 3,000,000	\$ 900,000	\$ -	\$ 387,463	\$ 4,287,463	\$ 5,000,000	\$ 2,500,000	\$ -	\$ 1,363,663	\$ 8,863,663

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Rehabilitation and Reconstruction Science					Strategic Approaches to Electricity Production from Coal				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 500,000	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	3,000,000	-	-	3,000,000	-	-	-	5,000	5,000
Total contribution revenue	<u>500,000</u>	<u>3,000,000</u>	<u>-</u>	<u>-</u>	<u>3,500,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,000</u>	<u>5,000</u>
Investment Income										
Realized gain (loss)	-	-	-	75,000	75,000	-	-	-	109,364	109,364
Unrealized gain (loss)	-	-	-	219,494	219,494	-	-	-	332,174	332,174
Endowment income	-	-	-	99,141	99,141	-	-	-	208,107	208,107
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>393,635</u>	<u>393,635</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>649,645</u>	<u>649,645</u>
Total revenue	<u>500,000</u>	<u>3,000,000</u>	<u>-</u>	<u>393,635</u>	<u>3,893,635</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>654,645</u>	<u>654,645</u>
Expenditures										
Personal services	-	-	-	110,157	110,157	-	-	75,712	265,964	341,676
Fringe	-	-	-	6,857	6,857	-	-	6,928	40,972	47,900
Travel	-	-	-	-	-	-	-	7,762	16,308	24,070
Supplies	-	-	371	447	818	-	-	125,372	12,326	137,698
Contractual	-	-	-	38,442	38,442	-	-	22,781	13,897	36,678
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	-	-	-	-	2,710	-	2,710
Administrative fees	-	-	-	28,593	28,593	-	-	-	40,490	40,490
Other	-	-	-	7,036	7,036	-	-	11,935	35,623	47,558
Equipment	-	-	-	16,953	16,953	-	-	45,691	24,890	70,581
Total expenditures	<u>-</u>	<u>-</u>	<u>371</u>	<u>208,485</u>	<u>208,856</u>	<u>-</u>	<u>-</u>	<u>298,891</u>	<u>450,470</u>	<u>749,361</u>
Program net income (loss)	500,000	3,000,000	(371)	185,150	3,684,779	-	-	(298,891)	204,175	(94,716)
Transfers	-	60,527	(60,527)	-	-	-	-	-	-	-
Cumulative Program Net Income Ending	2,000,000	1,237,500	60,898	361,312	3,659,710	5,000,000	2,500,000	848,866	1,166,125	9,514,991
Ending	<u>\$ 2,500,000</u>	<u>\$ 4,298,027</u>	<u>\$ -</u>	<u>\$ 546,462</u>	<u>\$ 7,344,489</u>	<u>\$ 5,000,000</u>	<u>\$ 2,500,000</u>	<u>\$ 549,975</u>	<u>\$ 1,370,300</u>	<u>\$ 9,420,275</u>

See notes to financial statements.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014**

	Healthcare Quality				Senior SMART™ Center					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 176,583	\$ -	\$ -	\$ -	\$ 176,583
Non-state matching funds	-	-	1,317,486	-	1,317,486	-	-	44,143	-	44,143
Total contribution revenue	-	-	1,317,486	-	1,317,486	176,583	-	44,143	-	220,726
Investment Income										
Realized gain (loss)	-	-	-	95,214	95,214	-	-	-	31,752	31,752
Unrealized gain (loss)	-	-	-	289,194	289,194	-	-	-	56,802	56,802
Endowment income	-	-	-	213,257	213,257	-	-	-	204,114	204,114
Total investment income (loss)	-	-	-	597,665	597,665	-	-	-	292,668	292,668
Total revenue	-	-	1,317,486	597,665	1,915,151	176,583	-	44,143	292,668	513,394
Expenditures										
Personal services	-	-	1,000,275	-	1,000,275	-	-	3,690	17,122	20,812
Fringe	-	-	239,826	-	239,826	-	-	1,310	3,267	4,577
Travel	-	-	17,192	-	17,192	-	-	-	3,734	3,734
Supplies	-	-	11,646	69,795	81,441	-	-	629	1,654	2,283
Contractual	-	-	41,959	-	41,959	-	-	-	44,783	44,783
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	3,845	-	3,845	-	-	-	4,404	4,404
Administrative fees	-	-	-	35,251	35,251	-	-	-	7,583	7,583
Other	-	-	3,455	(37,643)	(34,188)	-	-	-	14	14
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	1,318,198	67,403	1,385,601	-	-	5,629	82,561	88,190
Program net income (loss)	-	-	(712)	530,262	529,550	176,583	-	38,514	210,107	425,204
Transfers	-	-	-	-	-	-	2,000,000	(2,000,000)	-	-
Cumulative Program Net Income Ending	5,000,000	2,000,000	-	823,929	7,823,929	4,131,508	-	2,042,960	377,598	6,552,066
Ending	\$ 5,000,000	\$ 2,000,000	\$ (712)	\$ 1,354,191	\$ 8,353,479	\$ 4,308,091	\$ 2,000,000	\$ 81,474	\$ 587,705	\$ 6,977,270

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Nanoevironmental Research and Risk Assessment					Nuclear Science and Energy				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 341,614	\$ -	\$ -	\$ -	\$ 341,614
Non-state matching funds	-	-	11,188	-	11,188	-	85,000	-	-	85,000
Total contribution revenue	-	-	11,188	-	11,188	341,614	85,000	-	-	426,614
Investment Income										
Realized gain (loss)	-	-	-	51,505	51,505	-	-	-	34,936	34,936
Unrealized gain (loss)	-	-	-	156,435	156,435	-	-	-	105,346	105,346
Endowment income	-	-	-	133,969	133,969	-	-	-	102,618	102,618
Total investment income (loss)	-	-	-	341,909	341,909	-	-	-	242,900	242,900
Total revenue	-	-	11,188	341,909	353,097	341,614	85,000	-	242,900	669,514
Expenditures										
Personal services	-	-	-	104,948	104,948	-	-	12,850	42,897	55,747
Fringe	-	-	-	21,310	21,310	-	-	27	7,535	7,562
Travel	-	-	3,106	660	3,766	-	-	3,242	-	3,242
Supplies	-	-	680	1,052	1,732	-	-	1,880	-	1,880
Contractual	-	-	4,428	786	5,214	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	19,069	19,069	-	-	-	12,979	12,979
Other	-	-	2,974	5,360	8,334	-	-	34,419	-	34,419
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	11,188	153,185	164,373	-	-	52,418	63,411	115,829
Program net income (loss)	-	-	-	188,724	188,724	341,614	85,000	(52,418)	179,489	553,685
Transfers	-	-	-	-	-	-	-	6,479	-	6,479
Cumulative Program Net Income Ending	3,000,000	1,000,000	2,120	478,366	4,480,486	2,280,737	690,000	172,376	204,058	3,347,171
Ending	\$ 3,000,000	\$ 1,000,000	\$ 2,120	\$ 667,090	\$ 4,669,210	\$ 2,622,351	\$ 775,000	\$ 126,437	\$ 383,547	\$ 3,907,335

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Nuclear Science Strategies					Healthful Lifestyles				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ 456,729	\$ -	\$ -	\$ -	\$ 456,729	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>456,729</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>456,729</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	21,547	21,547	-	-	-	21,442	21,442
Unrealized gain (loss)	-	-	-	65,445	65,445	-	-	-	65,127	65,127
Endowment income	-	-	-	82,788	82,788	-	-	-	120,947	120,947
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>169,780</u>	<u>169,780</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>207,516</u>	<u>207,516</u>
Total revenue	<u>456,729</u>	<u>-</u>	<u>-</u>	<u>169,780</u>	<u>626,509</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>207,516</u>	<u>207,516</u>
Expenditures										
Personal services	-	-	-	-	-	-	-	-	-	-
Fringe	-	-	-	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	8,538	8,538	-	-	-	7,939	7,939
Other	-	-	-	-	-	-	-	-	86	86
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>8,538</u>	<u>8,538</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>93,142</u>	<u>93,142</u>
Program net income (loss)	456,729	-	-	161,242	617,971	-	-	-	114,374	114,374
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income Ending	1,918,308	510,000	-	145,771	2,574,079	3,000,000	900,000	-	289,978	4,189,978
Ending	<u>\$ 2,375,037</u>	<u>\$ 510,000</u>	<u>\$ -</u>	<u>\$ 307,013</u>	<u>\$ 3,192,050</u>	<u>\$ 3,000,000</u>	<u>\$ 900,000</u>	<u>\$ -</u>	<u>\$ 404,352</u>	<u>\$ 4,304,352</u>

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Data Analysis, Simulation, Imaging, and Visualization					Multiphysics Heterogeneous Engineered Materials Center				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,750,000	\$ -	\$ -	\$ -	\$ 1,750,000
Non-state matching funds	-	-	-	-	-	-	2,000,000	-	-	2,000,000
Total contribution revenue						1,750,000	2,000,000	-	-	3,750,000
Investment Income										
Realized gain (loss)	-	-	-	70,409	70,409	-	-	-	72,197	72,197
Unrealized gain (loss)	-	-	-	213,855	213,855	-	-	-	52,497	52,497
Endowment income	-	-	-	102,880	102,880	-	-	-	16,589	16,589
Total investment income (loss)				387,144	387,144	-	-	-	141,283	141,283
Total revenue				387,144	387,144	1,750,000	2,000,000	-	141,283	3,891,283
Expenditures										
Personal services	-	-	-	-	-	-	-	-	-	-
Fringe	-	-	-	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Fixed charges	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	26,068	26,068	-	-	-	4,130	4,130
Other	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures				26,068	26,068	-	-	-	4,130	4,130
Program net income (loss)	-	-	-	361,076	361,076	1,750,000	2,000,000	-	137,153	3,887,153
Transfers	-	-	-	-	-	-	-	-	-	-
Cumulative Program Net Income Ending	2,000,000	1,582,098	-	454,449	4,036,547	-	-	-	-	-
Ending	\$ 2,000,000	\$ 1,582,098	\$ -	\$ 815,525	\$ 4,397,623	\$ 1,750,000	\$ 2,000,000	\$ -	\$ 137,153	\$ 3,887,153

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
PROGRAM REVENUES AND EXPENDITURES
YEAR ENDING JUNE 30, 2014

	Total - University of South Carolina				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue					
State funds	\$ 3,224,926	-	\$ -	\$ -	\$ 3,224,926
Non-state matching funds	-	5,086,384	1,395,817	5,000	6,487,201
Total contribution revenue	3,224,926	5,086,384	1,395,817	5,000	9,712,127
Investment Income					
Realized gain (loss)	-	-	-	1,056,770	1,056,770
Unrealized gain (loss)	-	-	-	2,596,075	2,596,075
Endowment income	-	-	-	3,095,345	3,095,345
Total investment income (loss)	-	-	-	6,748,190	6,748,190
Total revenue	3,224,926	5,086,384	1,395,817	6,753,190	16,460,317
Expenditures					
Personal services	-	-	1,092,527	1,664,286	2,756,813
Fringe	-	-	248,091	260,703	508,794
Travel	-	-	33,322	94,054	127,376
Supplies	-	-	140,578	188,462	329,040
Contractual	-	-	69,168	252,651	321,819
Tuition assistance	-	-	-	-	-
Fixed charges	-	-	10,524	10,467	20,991
Administrative fees	-	-	34	373,612	373,646
Other	-	-	52,783	115,138	167,921
Equipment	-	-	46,645	111,861	158,506
Total expenditures	-	-	1,693,672	3,071,234	4,764,906
Program net income (loss)	3,224,926	5,086,384	(297,855)	3,681,956	11,695,411
Transfers	-	2,060,527	(2,054,048)	-	6,479
Cumulative Program Net Income					
Ending	58,830,553	23,028,933	3,127,307	10,427,625	95,414,418
Ending	\$ 62,055,479	\$ 30,175,844	\$ 775,404	\$ 14,109,581	\$ 107,116,308

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE YEAR ENDED JUNE 30, 2014

Notes to Financial Statements

Note 1. Description of Program

The South Carolina Research Centers of Economic Excellence Act (the Act) was introduced by Chapter 75 of Act No. A356 and passed by the South Carolina General Assembly during the 2002 legislative session. The Act was established to create the South Carolina Centers of Economic Excellence (the Program or SmartState) and the Centers of Excellence Matching Endowment, which originally was to be funded annually by appropriations from the South Carolina Education Lottery in an aggregate amount not to exceed \$ 200 million by 2010. During the year ended June 30, 2009, the South Carolina General Assembly revised the Act to provide for \$ 30 million in guaranteed funding each year if (a) the lottery scholarships have been funded, and (b) at least 80% of all appropriations have been awarded by the Review Board through the most recent previous fiscal year. In addition, the Act created the Research Centers of Excellence Review Board (the Review Board), which is responsible for awarding state matching funds, for oversight and operation of the fund, and for various accountability requirements established in the statute for the Program. The Review Board consists of eleven members. Of these eleven members, three must be appointed by the Governor of South Carolina, three must be appointed by the President Pro Tempore of the South Carolina Senate, three must be appointed by the Speaker of the South Carolina House of Representatives, one member each must be appointed by the Chair of the Senate Finance Committee and the Chair of the House Ways and Means Committee. The Presidents of the senior research universities of the State of South Carolina (Clemson University, the Medical University of South Carolina, and the University of South Carolina) serve as ex-officio non-voting members.

The purpose of the Act is to create incentives for the senior research universities of South Carolina to raise capital from the private sector to fund endowments for professorships in research areas targeted to create well-paying jobs and enhanced economic opportunities for the people of South Carolina. Non-state funds are used to match dollar-for-dollar funds appropriated by the General Assembly from the South Carolina Education Lottery. The program's intent is to provide \$ 30 million annually in South Carolina Education Lottery appropriations if (a) the lottery scholarships have been funded, and (b) at least 80% of all appropriations have been awarded by the Review Board through the most recent previous fiscal year. These state appropriations are to be matched by the institutions.

The endowed professorships are awarded to the senior research universities through a competitive application process, which encourages collaboration among the three research universities as well as with other South Carolina institutions of higher education. Awards from the Centers of Excellence Matching Endowment are to be not less than \$ 2 million and not more than \$ 5 million. Non-state matching funds are to be raised exclusively from sources other than South Carolina tax dollars, and committed and raised subsequent to January 1, 2002. The Research Centers of Economic Excellence Act was amended March 17, 2004, adding Section 90, which allows the research institutions to use federal funds received after July 1, 2003, as non-state matching funds. The Research Centers of Economic Excellence Act was further amended on June 25, 2008, adding Section 100, which allows the Review Board to use a portion (as determined by the Review Board) of the non-state match to pay for Center operating costs and which requires that the full state award of any dissolved or withdrawn Center be returned to the Centers of Excellence Matching Endowment. Section 110 was also added on June 25, 2008, which provided the eligibility of in-kind contributions as non-state matches.

In 2010, the General Assembly amended the Research Centers of Economic Excellence Act to create a new type of SmartState Award to be made in concert with the South Carolina Department of Commerce. One-quarter of the unallocated Centers of Excellence Matching Endowment funds is dedicated for funding such "SmartState Commerce Awards." SmartState Commerce Awards may not individually exceed \$ 2 million and do not require the dollar-for-dollar non-state match of Standard SmartState awards. In place of a matching requirement, the Secretary of Commerce is required to certify that a "significant capital investment" has been made in the related research field of a proposed SmartState Commerce Award professorial endowment; the intent of SmartState Commerce Award endowment is to "directly support the industry." These revisions became effective January 1, 2011.

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
YEAR ENDED JUNE 30, 2014**

Notes to Financial Statements

Note 2. Summary of Significant Accounting Policies

Basis of presentation and method of accounting: The Program's financial statements are presented on the accrual basis of accounting. Revenues are recorded in the period earned, and expenses are recorded at the time liabilities are incurred. Inasmuch as state funds are not disbursed until cash gifts are in hand, a pledge received in support of a Center is not recognized as revenue until the pledge has been satisfied.

Property and equipment: Property and equipment purchased with program funds is deemed to be the property of the respective research institution.

Assets available for program use: State funds committed for Program use are permanently restricted, as well as 30% of the non-state matching funds of each Center of Economic Excellence, as endowment funds. Earnings from the endowments funds may be expended for direct program purposes, as well as any non-state matching funds that exceed the 30% endowment requirement. In-kind contributions of real property, equipment, supplies and other expendable property, and the value of goods and services directly benefiting and specifically identifiable to a project or program may be used to satisfy non-state matching requirements, but may not account for more than 70% of the non-state match total for each proposal.

Use of estimates: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Federal grants used as non-state matching funds: Federal grants used as non-state matching funds by the research institutions are not reflected in the statements of program revenues and expenditures. Such funds are maintained separately from the Program by the research institutions. See Note 4 for additional information.

Note 3. Assets Maintained by Research Institutions

The assets resulting from program activities are maintained by the research institutions, and are held by the universities, their respective foundations, or by the State Treasurer. At June 30, 2014, cash and investments maintained by the research institutions for program purposes was as follows:

Clemson University	\$ 104,283,346
Medical University of South Carolina	159,485,207
University of South Carolina	107,116,308
Total	<u><u>\$ 370,884,861</u></u>

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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Notes to Financial Statements

Note 4. Proposals Using Federal Grants for Non-State Matching Funds

As described in Note 2, federal grants are eligible for use as non-state matching funds, but are not included in the statements of program revenues and expenses. The following table displays the total federal awards that have qualified as non-state matching funds and those that have been used toward the non-state match for each proposal as of June 30, 2014.

		Federal Grants used as Non-State Matching Funds	
<u>Institution</u>	<u>Proposal</u>	Total Qualifying As Non-State Match	Amount Used As Non-State Match
Clemson	Optical Materials	\$ 772,961	\$ 772,961
Clemson	Sustainable Development	1,313,439	1,000,000
Clemson	Advanced Fiber-Based Materials	310,000	310,000
MUSC	Proteomics	1,375,919	1,313,697
MUSC	Marine Genomics	2,927,730	2,208,577
MUSC	Translational Cancer Therapeutics	6,174,089	3,001,905
MUSC	Cancer Drug Discovery	6,292,518	3,395,490
MUSC	Gastrointestinal Cancer	3,221,264	2,438,472
MUSC	Vision Science	1,956,478	1,605,443
MUSC	Tobacco-Related Malignancies	3,221,264	2,402,904
MUSC	Renal Disease Biomarkers	268,520	268,250
MUSC	Cancer Stem Cell	2,457,288	1,857,092
MUSC	Advanced Tissue Biofabrication	2,578,100	2,578,100
MUSC	Lipidomics	1,624,983	1,523,633
USC	Nanostructures	1,444,820	1,444,820
USC	Brain Imaging	1,336,000	1,336,000
USC	Polymer Nanocomposites	2,020,110	1,876,971
USC	Hydrogen Fuel Cell Economy	661,451	661,451
USC	Renewable Fuel Cells	970,516	970,516
USC	Solid Oxide Fuel Cells	1,258,935	655,286
USC	Childhood Neurotherapeutics	1,243,106	1,168,428
USC	Data Analysis	143,444	143,444
USC	Nanoenvironmental Research and Assessment	731,822	510,749
USC	Nuclear Science and Energy	952,230	952,230
USC	Nuclear Science Strategies	1,110,839	1,110,839
		<u>\$ 46,367,826</u>	<u>\$ 35,507,258</u>

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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Notes to Financial Statements

Note 5. Subsequent Events

Subsequent events have been evaluated through October 31, 2014, the date these financial statements were available to be issued. As of October 31, 2014 the following drawdown requests have been submitted but have not been approved by the Joint Other Funds Committee:

Institution	Center	Amount
USC	Multiphysics of Heterogeneous Engineered Functional and Structures Materials	\$ 250,000
USC	Rehabilitation and Reconstruction Science	1,250,000
MUSC	Inflammation & Fibrosis Research	769,935
MUSC	Renal Disease Biomarkers	179,466
		<u>\$ 2,449,401</u>

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Review Board
South Carolina Centers of Economic Excellence
Columbia, South Carolina

We have audited the financial statements of the South Carolina Centers of Economic Excellence for the year ended June 30, 2014, and have issued our report thereon dated October 31, 2014. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered South Carolina Centers of Economic Excellence's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Program's internal control. Accordingly, we do not express an opinion on the effectiveness of the Program's internal control.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected by the entity's internal control.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we would consider to be significant deficiencies or material weaknesses, as defined above.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether South Carolina Centers of Economic Excellence's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

This report is intended solely for the information of management, the Review Board, the South Carolina Budget and Control Board, and the General Assembly and is not intended to be and should not be used by anyone other than those specified parties.

Derrick, Stubbs & Stith, LLP

October 31, 2014