South Carolina
Commission on Higher Education

December 21, 2018

Members of the General Assembly and Department of Administration:

Included in this correspondence are comprehensive drafts of the 2017-18 SmartState® Audit and Annual Report. On November 30, 2018, the SmartState® Review Board requested an extension for submission of the SmartState® annual report and audit until Friday, December 21, 2018. The audit is complete and has been thoroughly vetted and re-vetted by the Atlanta-based CPA firm of Maulden & Jenkins, LLC's governmental auditing, accounting, and reporting expert. At its December 21st meeting the SmartState® Review Board approved the final draft of the SmartState® Audit and Annual Report. However, for report distribution the leadership of the three research universities must sign the final audit report and financial statements. As you can imagine, coordinating signatures from the research institutional representatives including presidents and financial officers, during holiday travel season has not been possible. The institutions have assured us of receipt of the report and audit, and of the presidents and officers' signatures as soon as they return in early January. Until then, in order to meet the December 21st deadline, we are sending this version approved by the SmartState® Board, and again, we'll procure institutions' signatures and transmit that version once we have it.

Please contact Dr. Argentini Anderson at (803)737-2276 or aanderson@che.sc.gov if you have any questions.

Thanking you in advance.

Sincerely,

/s/ Argentini Anderson

Argentini Anderson
SmartState® Program Administrator

SOUTH CAROLINA

SmartState Centers of Economic Excellence

2017/2018 ANNUAL REPORT

SmartState®

Contents

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.*

SmartState Review Board

The SmartState Review Board consists of eleven members who serve three-year terms.

Three are appointed by the Governor,

Three are appointed by the President Pro Tempore of the Senate,

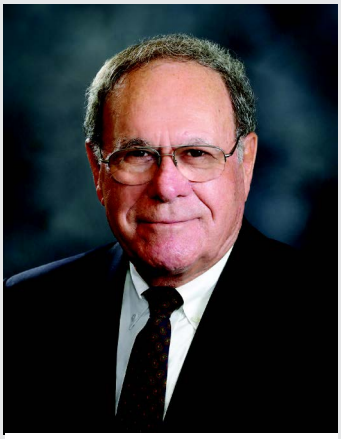
Three are appointed by the Speaker of the House of Representatives,

One by the Senate Finance Committee, and

One by the Chairperson of the House Ways and Means Committee.

The Review Board oversees operations of the SmartState® Program. The presidents of South Carolina's three research universities serve as ex officio, non-voting members.

JASON P. PREMO
CHAIR
Appointed by the Governor



CHARLES KEREKES
VICE CHAIR
Appointed by the Governor

CHARLES W. GARNETT
Appointed by the Governor

LISA D. MAIN
Appointed by the Speaker, House of Representatives

ROBERT W. PEARCE, JR.
Appointed by the Speaker, House of Representatives

REGAN VOIT
Appointed by the Chairman, Senate Finance Committee

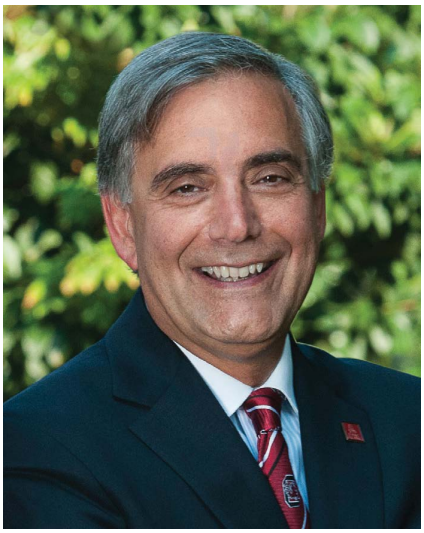
MELVIN C. WILLIAMS
Appointed by the President Pro Tempor, Senate

ROBERTA BANKHEAD WOOD
Appointed by the Chairman, House Ways & Means Committee

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.

JAMES P. CLEMENTS, Ph.D.
President
Clemson University

DAVID J. COLE, M.D., FACS
President
Medical University of South Carolina



HARRIS PASTIDES, Ph.D.
President
University of South Carolina

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

Ranked #23 among national public universities, **Clemson** is a major land grant, science- and engineering-oriented research university that is an inclusive, student-centered community characterized by high academic standards, a culture of collaboration, school spirit, and a competitive drive to excel. With agricultural and forestry research centers and innovation campuses located from Greenville to Charleston, and a presence in every county, Clemson's campus is truly the entire state of South Carolina. This year, Clemson was classified among universities with the highest level of research activity by the Carnegie Classification for Institutions of Higher Education.

Clemson has launched a new strategic plan, Clemson Forward, which emphasizes high-impact engagement opportunities to prepare students for a knowledge-based global economy, and growing research and doctoral education to help find solutions to real world problems. The plan also supports economic development and creates jobs, enhances quality of life and builds the university's national academic reputation. The plan identifies six innovation clusters to support development of multi-disciplinary teams and large research projects: Health Innovation, Sustainable Environment, Human Resilience, Big Data Science, Complex Engineered Systems, and Advanced Materials.

MUSC has served the citizens of our state since 1824. MUSC has expanded from a small, private college to a comprehensive academic health sciences center, with more than 1,700 faculty members educating and training more than 3,000 students, residents, and biomedical scientists in six colleges (Dental Medicine, Graduate Studies, Health Professions, Medicine, Nursing, and Pharmacy). As the largest non-federal employer in Charleston, the university and its affiliates have collective annual budgets in excess of $2.3 billion, with an annual economic impact of more than $3.8 billion and research funding in excess of $250 million annually. MUSC Health operates one of the state's largest and most innovative health systems, which includes a nationally recognized Children's Hospital, the Ashley River Tower (cardiovascular, digestive disease, and surgical oncology), Hollings Cancer Center (a National Cancer Institute-designated center), Level I Trauma Center, Institute of Psychiatry, and the state's only transplant center.

Since opening in 1805 with an initial enrollment of nine students, the University of South Carolina (USC) has grown its student body to more than 50,000 across eight campuses statewide. USC, the fourth fastest growing flagship university in the nation boasts 47 nationally ranked programs by *U.S. News & World Report*. The main campus in Columbia offers more than 300 degree programs through its 14 colleges and schools, which include the Darla Moore School of Business, the School of Law, the Arnold School of Public Health, and the nation's top-ranked public university honors college. USC is also one of only 32 public universities to receive the top-tier research designation and the top-tier community engagement designation from the Carnegie Foundation. As a leader in health sciences, USC offers the most comprehensive suite of health science academic programs (100) in South Carolina, including medical schools in Columbia and Greenville. That diversity of offerings allows for expansive research opportunities as well as exemplary student experiences, which have made the South Carolina the state's top global university. The university's strength in leading-edge research has led to recent public/private partnerships with Fortune 500 companies like Fluor, IBM, Siemens and Boeing. And, USC's 19 locations and its alumni throughout South Carolina pump $5.5 billion into the state's economy annually, making Carolina an indispensable contributor to the state's prosperity.

AACR Honors Doctor Chanita Hughes Halbert

Dr. Hughes-Halbert is the first woman and first African-American from South Carolina elected into the National Academy of Medicine. Image Credit: Emma Vought

Hollings Cancer Center researcher Chanita Hughes-Halbert, Ph.D., is the recipient of the 2018 AACR Distinguished Lecture on the Science of Cancer Health Disparities, funded by the Susan G. Komen organization, the American Association for Cancer Research (AACR) announced today.

The AACR Distinguished Lecture on the Science of Cancer Health Disparities recognizes an investigator whose novel and significant work has had or may have a far-reaching impact on the etiology, detection, diagnosis, treatment or prevention of cancer health disparities.

Hughes-Halbert said she's honored to have been chosen. "This important award brings attention to the research and scholarship that is being conducted to enhance cancer equity in racial and ethnic minorities and individuals from other medically underserved groups," she said. "My topic, which will address the ways in which social and psychological factors contribute to disparities, can be used to promote effective behavior and clinical changes to promote equity."

Hughes-Halbert is the principal investigator and director of the Transdisciplinary Collaborative Center in Precision Medicine and Minority Men's Health at Hollings Cancer Center at the Medical University of South Carolina (MUSC). In addition, she is the associate dean of assessment, evaluation and quality improvement and a professor in the Department of Psychiatry and Behavioral Sciences at MUSC. She also holds the AT&T Distinguished Endowed Chair for Cancer Equity at Hollings Cancer Center at MUSC.

The AACR is recognizing Hughes-Halbert for her research aiming to identify sociocultural, psychological and behavioral determinants of cancer disparities and to translate this evidence into interventions to improve cancer outcomes in medically underserved populations. Within this overarching program, her research focuses on three converging lines of investigation that have high clinical and policy importance: enhancing the participation of minorities in cancer research, developing culturally tailored assessments and interventions to improve cancer outcomes in minorities, and developing a sustainable infrastructure for cancer prevention and control through community-based participatory research methods.

Notably, her research has defined the field of genetic counseling and testing for inherited breast cancer risk in African-American women, and she was the first to examine acceptance rates and outcomes of genetic counseling and testing for BRCA1/2 mutations among African-American women. Her research in genetic counseling and testing provided a model of culturally tailored strategies for cancer prevention and control among racial minorities.

More recently, Hughes-Halbert has conducted translational research to understand the complex ways in which sociocultural, psychological, behavioral, genetic and clinical factors interact to produce racial and ethnic disparities in health care and disease outcomes among minority men. Her evolving research in this area has demonstrated that a willingness to participate in precision medicine studies is limited among African- Americans despite having positive expectations about the benefits of personalized medicine.

Hughes-Halbert is a past chair of the AACR Minorities in Cancer Research Council and currently serves on the editorial boards of Cancer Epidemiology, Biomarkers and Prevention and Cancer Prevention Research, two scientific journals of the AACR. She has been a member of board of scientific advisors at the National Cancer Institute and the National Advisory Council for the Human Genome Research. The National Academy of Medicine elected her to its ranks in 2017, making her the first investigator and woman in South Carolina to earn this distinction. She received a bachelor's degree from Hampton University and both a master's degree and doctorate in personality psychology from Howard University.

The AACR honored Hughes-Halbert during the 11th AACR Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved Nov. 2 through 5, in New Orleans. She delivered her award lecture, "Toward Understanding Psychosocial and Behavioral Issues in Cancer Health Disparities," on Friday, Nov. 2.

Dr. Kevin Huang has received the "2018 Breakthrough Leadership Award" from the University of South Carolina, Office of Research.

In the eight years Kevin Huang has been at the University of South Carolina, the energy science researcher has established a world-class electrochemical energy materials laboratory and program.

As a mechanical engineering professor and chair of the SmartState Center for Solid Oxide Fuel Cells, Huang's research is aimed at developing efficient, clean and low-carbon energy conversion and storage technology for a sustainable future. His work is directed toward electrochemical-energy materials science and engineering for fuel cells, rechargeable batteries and gas-separation membranes. Toward this end, he has authored more than 160 peer-reviewed papers and two books and has received 12 U.S.-issued patents, five from his research at USC.

His research has resulted in significant external funding, totaling more than $6.5 million from agencies including the National Science Foundation, the Department of Defense and the Department of Energy. The Advanced Research Projects Agency-Energy award has helped increase USC's visibility as a major research university.

"The ARPA-e award is the first in USC history. That fact that Dr. Huang leads teams from the University of Texas at Austin, University of Maryland, Clemson and Atrex Inc. demonstrates his outstanding leadership in the field," says Jamil Khan, professor and chair of mechanical engineering in the College of Engineering and Computing.

"Mentoring new junior faculty to accommodate the unique departmental culture is extremely important in fostering productive interdisciplinary collaborations among junior and senior faculty." - Kevin Huang

In 2017 Huang received the Educational Foundation Award for Research in Science, Mathematics and Engineering and in 2015 the College of Engineering and Computing Research Achievement Award. In 2014, he was named a Breakthrough Star by the Office of the Vice President for Research. Huang also has been actively involved in helping new and junior faculty members to start their programs and labs.

"The department of mechanical engineering is a multidisciplinary academic unit consisting of disciplines in conventional mechanical engineering, nuclear engineering, aerospace engineering and materials science engineering," Huang says. "Therefore, mentoring new junior faculty to accommodate the unique departmental culture is extremely important in fostering productive interdisciplinary collaborations among junior and senior faculty."●

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 (1) expand the state's knowledge base, (2) create public-private partnerships, (3) support startup firms, and (4) 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. The creation of high-wage jobs across the state is especially important in the current economic environment in which wage growth has been relatively mild despite a national economic expansion that is now in its tenth year.

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 to engage in 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 2018, the SmartState Program is responsible for helping to create and support approximately 14,626 jobs in South Carolina, which is associated with over $2.8 billion in economic activity and $807 million in labor income for South Carolinians that would not exist otherwise. Approximately 5,616 (38%) of these positions are knowledge economy jobs created directly through the SmartState Program, with the remaining 9,010 (62%) arising from additional spending activity generated through the economic multiplier effect.

"Despite the fact that the current economic expansion is now in its tenth year, wage growth remains relatively sluggish in both South Carolina and the United States. One critical factor that will help combat this trend in the Palmetto State is the continued growth of a strong and vibrant knowledge economy. Since 2002, the SmartState Program has helped to facilitate the development of the knowledge economy in South Carolina and in the process has generated over 14,000 jobs with annual salaries that pay significantly above the state average."

DR. JOSEPH VON NESSEN
Research Economist
Darla Moore School of Business,
University of South Carolina

3
Research Universities
Clemson, MUSC, USC

6
Industry Clusters[1]

51
SmartState® Centers of Economic Excellence

74
SmartState Endowed Chairs appointed
(of the 85 created)

$197.6M
State Funds Invested[2]

$2.8B
Return on Investment[3]

14,626
Total Employment (All jobs)[3]

$71,560
Average Salary of a Knowledge Economy Job[3]

85
Start-ups and Corporate Relocations[4]

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 2018 Economic Impact of the SmartState® Program analysis conducted by the Darla Moore School of Business. Of the total 14,626 jobs, 5,616 are knowledge economy jobs created directly through the SmartState® Program, including 592 SmartState personnel, 1,287 start-up company and corporate relocation personnel, 33 alumni placed with in-state employers, and 3,737 employed through Extramural Research Funding. The remaining 9,010 jobs are indirect employment arising from the economic multiplier effect. For more information about the return on investment, see page 12.

4 See page 10 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
- Duke Energy Foundation
- Electric Cooperatives of South Carolina
- Fluor Corporation
- Force Protection Industries
- G. E. Renewable
- General Atomics
- George B. Sibert Annuity
- GlaxoSmithKline
- Greenville Hospital System
- Health Sciences South Carolina
- J.E. Sirrine Foundation
- Kellogg Foundation
- Kentwool
- Michelin
- Okuma
- Orbis
- Palmetto Health
- PalmettoNet
- Research to Prevent Blindness
- Robert Wood Johnson Foundation
- Samuel Freeman / Donaldson Charitable Trust
- Santee Cooper
- Smith & Nephew
- Spartanburg Regional
- SRNL Healthcare System
- The Duke Endowment
- The Spaulding Paolozzi Foundation
- Timken
- Toyota
- Volvo
- Westinghouse
- ZF

START-UP COMPANIES

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

- Advanced Photonic Crystals
- Career Care Solutions
- Cephos
- Cicadia
- Clinacuity
- Closing the Gap in Healthcare, Inc.
- Coastal Focus Market Research Company
- DF Werke, LLC
- Doxy.me
- eCAM
- Fibro Therapeutics, Inc.
- First String Research
- GeoMat, LLC
- Hydrogen Hybrid Mobility, LLC
- ImmoMod, Inc.
- Inquisatex Epitherapeutics, LLC
- IntrusinMyFamily.com
- MagAssemble, LLC
- MicroVide
- MitoChem Therapeutics, LLC
- MitoHealth
- Neuroene Therapeutics
- NextGenEn
- NXT
- Oncology Analytics
- Palmetto Fuel Cell Technologies, LLC
- Palmetto Green
- Parallel Permeation, Inc.
- Patient Guided Health Solutions, LLC
- Perfect Mixing, LLC
- Protara, LLC
- SAGE Energy Solutions
- Schnellgen, Inc.
- SemiAllogen, Inc
- SimTunes, LLC
- Smart Innovations, LLC
- South Carolina Science Solutions, LLC
- Specialty & Custom Fibers, Inc.
- Tetramer Technologies
- Vortex Biotechnology
- Zeriscope, Inc.
- 52 Inc.

CORPORATE RELOCATIONS

Companies that have relocated to South Carolina to benefit from the expertise, resources, and graduates in the SmartState® Program:

- A. Berger
- American Titanium Works (ATW) Manufacturing
- American Titanium Works (ATW) Technology Center
- BMW Information Technology Research Center (ITRC)
- CADFEM U.S.*
- Charge2Target
- CleanEnergy
- COE Optics
- Computech*
- Cooliemon Technologies*
- C-P-S Group
- DreamWeaver*
- EHD Tech
- Environment and Health Inc. (EHG)
- Esys Automation
- Fields Group, LLC.*
- Focus Chemicals*
- FSI - Advanced Research
- Greenway Energy, LLC
- In-tech
- Innoventure
- IndySoft
- Intec U.S. Inc.
- Intellectual Capital Group
- International Mold Co.
- JTEKT Technology Center
- Mallet Technology*
- Michelin
- Michelin Incubator
- Mumford Industries*
- OmniSource
- Proterra, Inc.
- RESA (AIG-Clemson)
- Roding*
- Sage Automotive Interiors*
- SC Research Authority (SCRA)
- Senex Biotechonology, Inc.
- Simpack, Inc.
- SWJ Breilman
- ThermoPur Technologies*
- Tigges*
- Toho Tenax*
- Trulite

* In May 2012, CU-ICAR (Clemson University International Center for Automotive Research) 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.

Clemson, MUSC share gains made in OR design project

"Show and tell" of innovative design demonstrates future impact

CHARLESTON S.C. - A joint research team including faculty from Clemson University and the Medical University of South Carolina (MUSC) unveiled a high-fidelity, mockup operating room (OR) at the Clemson Design Center in Charleston today. The prototype is based on three years' worth of research of past literature on OR functionality; observation of best practices in updated, modernized ORs; and input from nurses, doctors and anesthesiologists on how the new OR should function.

Lead investigators on the joint MUSC-Clemson project titled, "Realizing Improved Patient Care Through Human-Centered Design in the OR" (RIPCHD.OR) are Scott T. Reeves, M.D., the John E. Mahaffey, M.D. endowed chair and MUSC Department of Anesthesia and Perioperative Medicine chairman, and Anjali Joseph, Ph.D., the Spartanburg Regional Health System endowed chair in architecture and director of the Center for Health Facilities Design and Testing at Clemson University.

The goal of RIPCHD.OR is to analyze every aspect of the current OR standard and redesign it with efficiency and improved patient care in mind. Surgical leaders from the South Carolina Surgical Quality Collaborative, led by Mark Lockett, M.D., will help vet the group's findings.

Joseph and Reeves during the Jan. 25 unveiling of RIPCHD.OR in Charleston.
Image Credit: MUSC photo

"We've taken a comprehensive, evidence-based approach to redesigning operating rooms to create an evidence-based design solution that simultaneously tackles problems related to workflow, equipment design and the built environment – major areas that impact patient safety outcomes," Joseph said.

The new operating room design aims to:

- improve staff safety by reducing clutter and trip hazards;
- reduce surface contamination through material selection and improving ergonomics;
- support team communication by refining sightlines and visibility within the OR; and
- adapt as care delivery and technology change without significant cost or disruptions through use of modular wall panels. The team of researchers, engineers and clinical specialists involved in this project received a four-year, $4 million research grant from the Agency for Healthcare Research and Quality in 2015 to research and develop a safer, more efficient OR.

"We want to establish a new standard on what should be considered when you build an OR, and the first two years of this project have been dedicated to that end," Reeves said. "Now in our third year, we've designed and constructed a simulation of this future state OR, complete with mannequins and software that will enable comprehensive testing of the design. It's exciting to be at this point in the project, and we are eager to start collecting more data and feedback."

Most ORs across the nation consist of a cramped, square white room with a patient bed in the middle of the space; they are antiquated, confined spaces that do not accommodate today's high-tech surgical equipment, complex processes and human interactions. Distractions and interruptions are major causes of errors during surgery and often lead to patient harm. Additionally, up to five percent of patients who undergo surgery will develop a surgical site infection. Smarter, evidence-based design has the potential to make operating rooms safer for patients and health care personnel alike.

"The standard OR does not support the needs of the patients, nurses or surgeons, so we're excited to have reached the testing point for these new concepts and to demonstrate what we've learned through this mock OR and simulation experience," Joseph said. The first-of-its-kind project covers three specific areas of research designed to improve patient care and efficiency in a future OR design: unmasking of anesthesia–related alarms and communications, traffic flow and door openings, and an integrated OR suite design. The design and fabrication of the prototype room was developed by a team of graduate students in the Architecture + Health program at Clemson under the direction of Alumni Distinguished Professor David Allison, in collaboration with the research team, MUSC clinicians and industry partners.

Reeves and Joseph agree — this groundbreaking project would not have become a reality without multidisciplinary, collaborative forces teaming up to improve patient safety and care."When institutions of excellence align their interests and work together to achieve a common goal, patients win," Reeves said."It has been a really wonderful relationship between Clemson and MUSC that has made this all possible," Joseph explained. "We have the researchers, expertise and the manpower to do all of this, and MUSC has the leadership and know-how it takes to implement it." ●

#STEMlikeagirl

MUSC women scientists give girls a taste of science careers

Leslie Cantu | cantul@musc.edu

Research is fun.

That's the message that Carol Feghali-Bostwick, Ph.D., and devoted women volunteers wanted girls to get at a recent STEM-oriented camp at the College of Charleston. STEM stands for science, technology, engineering and math.

And the girls did have fun. Outfitted with lab coats and gloves, they mashed up bananas into a simple solution of materials found around the house and extracted the banana DNA. They even got a banana DNA-extraction recipe to take home so they could replicate the experiment with family and friends.

The free three-day camp, called Girls Day Out, included participation from many STEM-oriented industries around the Lowcountry, including Bosch, Boeing, Nucor, Google and the Space and Naval Warfare Systems Command (SPAWAR).

Camp participants conducted a simple experiment.
Courtesy of Girls Day Out

Because of Charleston's mix of industries, most people here tend to think first of technology and engineering when they think STEM, but the MUSC group from the Women Scholars Initiative, College of Medicine Center for ARROWS and SCTR showed the girls that science is a viable career as well. Not only did the girls get to do a hands-on activity, but they got to meet women scientists – every person leading the activity was a woman, each with a Ph.D.

Feghali-Bostwick, the SmartState and Kitty Trask Holt endowed chair and Professor of Medicine in the Division of Rheumatology and Immunology, said she wants girls to see research science as an attainable goal. Girls Day Out was geared toward girls entering eighth and ninth grades –the ages when interest in science tends to drop off for girls, according to studies.

Camp participants conducted a simple experiment.
Courtesy of Girls Day Out

"That's the age where they start questioning if they can do it," said Feghali-Bostwick, who also serves as chair of the Women Scholars Initiative.

She credited the new WSI community outreach committee, chaired by Kristine DeLeon-Pennell, Ph.D., with organizing the banana DNA extraction activity. Lindsay McDonald, Ph.D.; Lillianne Harris Wright, Ph.D.; Iuliia Polina, Ph.D.; Diana Lee-Chavarria, education program manager at SCTR Institute;, and Rachel Simmons, WSI and Center for ARROWS program coordinator, worked the event while Daria Ilatovskaya, Ph.D., also helped with planning.

The girls got to take home some MUSC swag, including cute pens with a hashtag that reminds them to #STEMlikeagirl.

The committee wants to do more to introduce girls to research science. Talks are in progress about developing programming with the Girl Scouts or in local schools.

SMARTSTATE® PROGRAM
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. These Centers, which align with industries in South Carolina, help elevate the state's economy and quality of life. What follows is an overview of each Center.

Program totals reported as of November 2018. In cases of joint proposals, Centers awarded by an 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 and Clemson. On the pages that follow, information about each SmartState Center includes 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 2018, 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.

51	SmartState® Program Centers Awarded
85	SmartState Endowed Chairs Created
75	SmartState Endowed Chairs Appointed
11	SmartState Endowed Chairs Remaining to be Appointed

CLEMSON UNIVERSITY		UNIVERSITY OF SOUTH CAROLINA		MUSC MEDICAL UNIVERSITY of SOUTH CAROLINA	
13	Awarded	**18**	Awarded	**20**	Awarded
16	Created	**28**	Created	**41**	Created
15	Appointed	**25**	Appointed	**35**	Appointed
1	Remaining	**3**	Remaining	**7**	Remaining

Advanced Materials & Nanotechnology

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:
$14.8 million

Research Focus: To provide the vehicle for repositioning existing research and manufacturing resources to support new industrial and entrepreneurial opportunities based on advanced polymeric-based materials.

ENVIRONMENTAL NANOSCIENCE AND RISK*

Award Date: 2008

State Award Amount: $3 million

University: USC

Endowed Chair(s):
Dr. Jamie Lead

External Funding Above Match:
$4.7 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 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):
USC is recruiting one endowed chair.

External Funding Above Match:
$6 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.

MULTIFUNCTIONAL MATERIALS & STRUCTURES (MFMS)*

Award Date: 2013

State Award Amount: $2 million

University: USC

Endowed Chair(s):
Dr. Michel van Tooren

External Funding Above Match:
$13.4 million

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):
Dr. John Ballato
J. E. Sirrine Textile Foundation Endowed Chair in Optical Fiber

Corporate Partner(s):
J.E. Sirrine Textile Foundation

External Funding Above Match:
$30 million

Research Focus: Conduct optical and photonic materials research, particularly as relates to advanced optical fibers and fiber-based devices, 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:
$18.5 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.

*** Graduated Center**

Once a center has reached a point of full operability, the SmartState Review Board has the authority to graduate SmartState centers. A center must meet the requirements in the following key areas to be considered graduated: non-state match; all draw downs; endowed chairs and key personnel; initiatory programmatic activities have been achieved; the most recent annual report cites demonstrable programmatic activity; and match certification. Once a center is graduated, the majority of fiscal and administrative oversight responsibilities are transferred to the center's lead fiscal institution. Certain accountability and reporting obligations are retained by the graduated center.

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:
$11 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):
Dr. Laine Mears
BMW Endowed Chair in Automotive Manufacturing

Corporate Partner(s):
BMW

External Funding Above Match:
$17.2 million

Research Focus: Seeks to reinvent the vehicle production system through developing processes inspired by car designs (transitioning from Design-for-Manufacturing thinking to Manufacturing-for-Design), and augmenting existing process capital through smarter model-based control and applying energy fields to overcome material limitations. The guiding goals of this research are to improve productivity, reduce downtime, enhance quality, and more effectively integrate the human to the emerging digital information network.

AUTOMOTIVE SYSTEMS INTEGRATION*

Award Date: 2003

State Award Amount: $5 million

University: Clemson

Endowed Chair(s):
Dr. Christiaan Paredis, Clemson
BMW Endowed Chair in Automotive Systems Integration

Corporate Partner(s): BMW, Mazda, GM and others

External Funding Above Match:
$7.9 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.

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:
$11.8 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. Venkat Krovi
Michelin Endowed Chair in Vehicle Electronic Systems Integration

Corporate Partner(s):
Michelin

External Funding Above Match:
$4.7 million

Research Focus: Research to enable intra-vehicle and V2X automation, at subsystem, system, and system-of-systems levels, for automotive and vehicular applications.

* **Graduated Center**

Biomedical

ADVANCED TISSUE BIOFABRICATION

Award Date: 2008

State Award Amount: $5 million

Universities: MUSC, USC, Clemson

Endowed Chair(s):
Dr. Bruce Gao, Clemson
Endowed Chair in Biofabrication Engineering

MUSC and USC are recruiting Endowed Chairs in *Biofabrication Biology.*

External Funding Above Match:
$648,948

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 Helpern, MUSC

MUSC is recruiting one additional endowed chair.

External Funding Above Match:
$42.9 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.

CHILDHOOD NEUROTHERAPEUTICS

Award Date: 2006

State Award Amount: $5 million

Universities: USC, MUSC

Endowed Chair(s):
Dr. Jeffery Twiss, USC
Child and Adolescent Neurochemistry

Dr. Manuel Casanova, USC
Translational Clinical Research

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

External Funding Above Match:
$13 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. Cynthia Corbett, USC
Endowed Chair in Chronic Care Management

External Funding Above Match:
$12.9 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.

EFFECTIVENESS RESEARCH IN ORTHOPEDICS (CERotho)

Award Date: 2007

State Award Amount: $5 million

University: USC

Endowed Chair(s):
Dr. John Brooks

Corporate Partner(s):
Smith & Nephew

External Funding Above Match:
$17 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.

* **Graduated Center**

Biomedical

HEALTHCARE QUALITY*

Award Date: 2007

State Award Amount: $5 million

Universities: USC, MUSC

Endowed Chair(s):
Dr. Les Lenert, MUSC
Medical Bioinformatics

Dr. Xiaoming Li, USC
Translational Clinical Research

Corporate Partner(s):
The Duke Endowment

External Funding Above Match:
$22.9 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):
Dr. Anjali Joseph, Clemson
Architecture & Health Research

Dr. Kenneth Catchpole, MUSC
Clinical Practice and Human Factors

External Funding Above Match:
$5.4 million

Research Focus: The impact of the built environment on health and healthcare delivery and the creation of architectural settings that promote health, safety, and the wellbeing of all users.

INFLAMMATION AND FIBROSIS RESEARCH*

Award Date: 2010

State Award Amount: $5 million

University: MUSC

Endowed Chair(s):
Dr. Carol Feghali-Bostwick
Kitty Trask Holt Endowed Chair for Scleroderma Diseases

Dr. Betty Tsao
Inflammation Research

External Funding Above Match:
$33.9 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, College of Charleston

Endowed Chair(s):
Dr. Gavin Naylor, MUSC
Bioinformatics

Dr. Michael G. Janech,
MUSC *Bioinformatics*

External Funding Above Match:
$12 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
Countess Alicia Spaulding Palozzi Chair in Cardiovascular Imaging

Dr. Thomas G. DiSalvo
Volpe SmartState Endowed Chair in Cardiovascular Biomarker Development for Diagnosis & Prevention

External Funding Above Match:
$8.2 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.

NEUROSCIENCES

Award Date: 2003

State Award Amount: $3 million

University: MUSC

Endowed Chair(s):
Dr. Christopher Cowan
William E. Murray Endowed Chair in Neuroscience

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

External Funding Above Match:
$19 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.

*** Graduated Center**

Biomedical

PROSTATE CANCER DISPARITIES

Award Date: 2008

State Award Amount: $3.6 million

University: MUSC, USC, SCSU

Endowed Chair(s):
Dr. Chanita Hughes-Halbert, MUSC
AT&T Distinguished Endowed Chair in Cancer Equity in Cancer Disparities

Dr. Marvella Ford, MUSC/SCSU
Cancer Disparities

USC is recruiting an endowed chair in *Cancer Disparities*.

Corporate Partner(s): AT&T Foundation

External Funding Above Match:
$48.6 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.

PROTEOMICS*

Award Date: 2003

State Award Amount: $4 million

University: MUSC

Endowed Chair(s):
Dr. Richard Drake

Dr. Anand S. Mehta

External Funding Above Match:
$23.3 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

Dr. Stephen Duncan, MUSC
Regenerative Medicine and Cell Biology

Dr. Jeremy Gilbert, Clemson
Hansjörg Wyss Endowed Chair in Bioengineering

External Funding Above Match:
$44.1 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.

RENAL DISEASE BIOMARKERS

Award Date: 2008

State Award Amount: $5 million

University: MUSC

Endowed Chair(s):
Dr. Deepak Nihalani
Renal Biomarkers

MUSC is recruiting one endowed chair in *Translational Nephrology Research*.

External Funding Above Match:
$8.2 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®

Dr. Julius Fridriksson, USC
SmartBRAIN™

Clemson is recruiting one endowed chair in *SmartWHEELS™*.

External Funding Above Match:
$14.7 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.

*** Graduated Center**

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:
$31.6 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

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

External Funding Above Match:
$18.5 million

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 MALIGNANCY

Award Date: 2007

State Award Amount: $5 million

University: MUSC

Endowed Chair(s):
Dr. Nancy DeMore
BMW Chair in Cancer Research

MUSC is recruiting the *Burtschy Family Distinguished Endowed Chair in Lung Cancer Research*.

Corporate Partner(s):
BMW

External Funding Above Match:
$67.2 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):
Dr. Stephane Meystre

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.

External Funding Above Match:
$539,697

VISION SCIENCE

Award Date: 2005

State Award Amount: $4.5 million

Universities: MUSC

Endowed Chair(s):
Dr. Baerbel Rohrer
Chair in Gene and Pharmaceutical treatment of Retinal Degenerative Diseases

MUSC is recruiting one endowed chair.

Corporate Partner(s):
Alcon Labs, Taligen, Alexion Pharmaceuticals

External Funding Above Match:
$27 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.

* **Graduated Center**

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:
$13.6 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):
Dr. Theodore Besmann
Energy and Nuclear Security

Corporate Partner(s):
General Atomics

External Funding Above Match:
$45 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.

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:
$7.3 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):
Dr. Johan Enslin
Duke Energy Smart Grid Technology Chair

Corporate Partner(s):
Duke Energy

External Funding Above Match:
$6.9 million

Research Focus: Develop technology to better plan and operate electric power systems.

SOLID OXIDE FUEL CELLS*

Award Date: 2006

State Award Amount: $3 million

University: USC

Endowed Chair(s):
Dr. Kevin Huang, USC
Solid Oxide Fuel Cells

External Funding Above Match:
$60.1 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:
$13 million

Research Focus: Developing, improving, and advancing technologies to enhance the environmental performance of electricity production. Other work focuses on converting CO_2 to chemicals, fuel cell and hydrogen storage-related research, and chemical production from coal to biomass.

* **Graduated Center**

Information Science

CYBERINSTITUTE

Award Date: 2008

State Award Amount: $2 million

University: Clemson

Endowed Chair(s):
Dr. Sally McKee
C. Tycho Howle Endowed Chair in Collaborative Computing Environments.

Corporate Partner(s):
Omnibond Systems, LLC

External Funding Above Match:
$7.6 million

Research Focus: Connecting research and scholarship, particularly in interdisciplinary aspects of high-performance computing, networking, and data storage; the security of information systems and networks; human-computer interactions; 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):
Dr. Wolfgang Dahmen
Williams-Hedberg-Hedberg Chair of Mathematics

External Funding Above Match:
$3.1 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.

INNOVATION AND COMMERCIALIZATION

Award Date: 2004

State Award Amount: $5 million

University: USC

Endowed Chair(s):
Dr. Laura B. Cardinal
Discovery and *Innovation*

Corporate Partner(s):
Fluor Foundation and Savanah River Nuclear Solutions LLC

External Funding Above Match:
$19.8 million

Research Focus: The innovation, commercialization, and new venture development of research in the SmartState Centers, leading to technology commercialization and transfer activities in collaboration with business organizations and public sector stakeholders.

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:
$12 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):
Dr. Mark Johnson
Thomas F. Hash '69 Endowed Chair in Sustainable Development.

External Funding Above Match:

$6.5 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 wireless sensor networks that can reliably monitor and transmit environmental data in near 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:
$568,107

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):
Dr. Robert F. Baldwin
Margaret H. Lloyd SmartState Chair in Urban Ecology

External Funding Above Match:
$7.9 million

Research Focus: Generating scholarship by building collaborations in applied ecology and environmental science, habitat ecology and restoration, wetland and watershed management; conservation biology; private-public networks for conservation; payments for ecosystem services; urban ecology; environmental education; and by developing careers of young scientists and educators.

* **Graduated Center**

Pharmaceutical

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

Dr. Mark Hamann, MUSC
Charles & Carol Cooper Chair in Pharmacy

Dr. Mitzi Nagarkatti, USC
Structural Biology and *Pharmacy*

Corporate Partner(s):
GlaxoSmithKline

External Funding Above Match:
$21 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:
$29 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

Dr. Gustavo Leone, MUSC
Grace DeWolff Endowed Chair in Medical Oncology

Corporate Partner(s):
Roche Carolina, Bank of America

External Funding Above Match:
$18 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

Dr. Besim Ogretmen
Lipidomics Drug Discovery

External Funding Above Match:
$38 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, USC
Frank P. and Josie M. Fletcher Professor of Pharmacy

External Funding Above Match:
$6.7 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:
$40 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.

* **Graduated Center**

The sky is not the limit

USC's McNAIR Center gains altitude in research and education
Chris Horn

If the McNAIR Center for Aerospace Innovation and Research magically sprouted wings, it would probably be some kind of cool experimental aircraft with an advanced composite fiber fuselage. That wouldn't be a stretch of the imagination considering the roster of aerospace talent the center has attracted and the collective energy of 50 undergraduate and graduate students who rub elbows there every day. But rewind the tape four years to when the center had only a couple of offices, four people and no research equipment. Imagining the McNAIR Center back then as anything more than a paper airplane would have required a real leap of faith.

Taking flight

"When I arrived, basically, there was nothing," says Michel van Tooren, who started out as the McNAIR Center's second research professor and was recently appointed the center's director. "But when I was teaching at Delft University of Technology, I had been awarded as the second most entrepreneurial professor in the Netherlands in 2010. I know how a startup works; I know how to write a business plan and raise money. And here, at least, there was a startup donation to get things moving."

That $5 million pledge from Carolina alumna and benefactor Darla Moore laid the groundwork for the center, complemented by an additional $5 million pledge from Anita Zucker, chairwoman and CEO of the Intertech Group. USC alumna Marva Smalls, an executive vice president at Viacom and Nickelodeon, gave $1 million to endow scholarships for minority students from the Pee Dee region majoring in computer science and engineering at USC.

Zafer Gurdal, an aerospace engineer and the center's first director, van Tooren and business manager Martin Keaney together got the center ready for takeoff. After acquiring a fiber-placement machine, a set of robots and an induction heater and outfitting a large research lab in the S.C. Research Authority building on Catawba Street, the center began to take flight.

"By the beginning of 2016, people started seeing what we were going to do in terms of a research agenda," van Tooren says. "That got Boeing interested, and we signed our first big contract ($5 million) with them to look at manufacturing technology, especially fiber placement, induction welding and nondestructive evaluation."

One of van Tooren's ongoing goals — and one that's close to being realized — is the creation of an undergraduate degree program in aerospace engineering within the College of Engineering and Computing. A small master's program is already in place, and a full bachelor's degree program will create a pipeline of students to make the center's activities sustainable.

"We now have a specialized section of the introduction to engineering that emphasizes aerospace engineering, and there are 50 freshmen who indicated during enrollment that this is their goal — to become aerospace engineers," van Tooren says. "This could be our first cohort of aerospace engineering majors."

Through the McNAIR fellowship program, an initiative of Ramy Harik, an assistant professor in the McNAIR Center who joined in 2014, undergraduates commit at least five hours per week to research activities at the center, working under the supervision of graduate students, faculty and lab staff. Those who complete three semesters get a certificate, internship experiences and can then apply for summer jobs at the center.

High-flying deals

Boeing's big contract with the McNAIR Center grabbed attention, but the center has been inking deals with many other aerospace partners, as well, including okker, NASA, GE Renewable, Carbon Conversions and Ingersoll, which provided the carbon fiber-placement equipment. Many of Ingersoll's customers rent the McNair Center's machine and harness the center's technical expertise or contract with the center to build sample parts for testing. The McNAIR Center will soon lease more space in the SCRA building to welcome the Center for Predictive Maintenance, a long-term research project led by mechanical engineering professor Abdel Bayoumi that has focused on Army helicopter maintenance.

"We've focused in the beginning on composites manufacturing because that's what Boeing is using at their Charleston plant, but we need to give our students some exposure to aircraft design, as well," van Tooren says. "We need to go way beyond materials design."

To that end, the center director envisions building a wind tunnel in the laboratory and a flight cage for experimenting with drones. He also points to the broadening of disciplines from which new aerospace faculty are coming — not just mechanical engineering but also electrical, chemical and integrated information technology.

"The state of South Carolina has more than 400 aerospace-related companies that cover the whole supply chain," he says. "It makes a lot of sense to widen the range of engineers we train here. There are so many companies and so many potential opportunities for our graduates."

The future looks bright for the aerospace industry in South Carolina — and for the McNAIR Center's plans to grow with it, van Tooren says. He references a recent economic impact study released by the South Carolina Council on Competitiveness that shows the impact of aerospace on South Carolina's economy has grown to 1 billion, an increase of 2 billion since 2014.

"This year's research shows a clear indication that the industry is diversifying and trending towards sustainable growth. We see that the majority of firms continue to be small businesses with fewer than five employees," says Joey Von Nessen, a research economist at the Darla Moore School of Business. "We also see growth, not just in aircraft manufacturing, but also in engine manufacturing, instruments manufacturing and other types of firms."

All of that translates into more opportunity for the McNAIR Center to fly higher and farther, van Tooren says. "We've still got a long way to go," he says, "but we're growing every month."

SMARTSTATE® PROGRAM

Endowed Chairs

The role of SmartState® Program Endowed Chairs is to serve as catalyst for the state's knowledge economy. Seventy-five chairs of 85 approved chairs have been filled at Clemson University, the Medical University of South Carolina, and the University of South Carolina across 51 SmartState Centers. The SmartState® Program welcomed three new endowed chairs this year: Dr. Sally McKee , Dr. Michael G. Janech, and Dr. Mark Johnson.

ROBERT ADAMS
Stroke
MUSC

ROBERT F. BALDWIN
Urban Ecology and Restoration
Clemson

JOHN BALLATO
Optical Materials/Photonics
Clemson

BRIAN BENICEWICZ
Polymer Nanocomposites
USC

CHARLES BENNETT
Medication Safety and Efficacy
USC

THEODORE BESMANN
General Atomics
USC

CAROLYN BRITTEN
Gastrointestinal Cancer Diagnostics
MUSC

JOHN BROOKS
Effectiveness Research in Orthopedics
USC

DAN GABRIEL CACUCI
Nuclear Science and Energy
USC

LAURA B. CARDINAL
Innovation and Commercialization
USC

MANUEL CASANOVA
Childhood Neurotherapeutics
USC

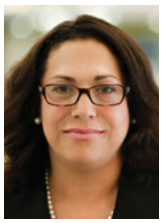
KENNETH CATCHPOLE
Health Facilities Design and Testing
MUSC

MARK CHIMOWITZ
Stroke
MUSC

CYNTHIA CORBETT
CEPS
USC

CHRISTOPHER COWAN
Neurosciences
MUSC

WOLFGANG DAHMEN
Data Analysis Simulation Imaging and Visualization
USC



NANCY DEMORE
Tobacco-related Malignancies
MUSC

J. ALAN DIEHL
Lipidomics Pathobiology and Therapy
MUSC

THOMAS DISALVO
Molecular Proteomics in Cardiovascular Disease and Prevention
MUSC

RICHARD DRAKE
Proteomics
MUSC

STEPHEN A. DUNCAN
Regenerative Medicine
MUSC

JOHAN ENSLIN
Smart Grid Technology
Clemson

CAROL FEGHALI-BOSTWICK
Inflammation & Fibrosis Research
MUSC

ZORAN FILIPI
Automotive Design and Development
Clemson

MARVELLA FORD
Prostate Cancer Disparities
MUSC/SCSU

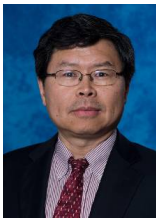
JULIUS FRIDRIKSSON
SeniorSMART®
USC

BRUCE GAO
Advanced Tissue Biofabrication
Clemson

JEREMY GILBERT
Regenerative Medicine
Clemson

MARK HAMANN
Cancer Drug Discovery
MUSC

JOSEPH HELPERN
Brain Imaging
MUSC



KEVIN HUANG
Solid Oxide Fuel Cells
USC

SIMON HUDSON
Tourism and Economic Development
USC

CHANITA HUGHES-HALPERT
Prostate Cancer Disparities
MUSC

MICHAEL JANECH
Marine Genomics
MUSC

ERIC JOHNSON
Optoelectronics
Clemson

MARK JOHNSON
Sustainable Development
Clemson

ANJALI JOSEPH
Health Facilities Design and Testing
Clemson

VENKAT KROVI
Vehicle Electronic Systems Integration
Clemson

JOCHEN LAUTERBACH
Strategic Approaches to the Generation of Electricity (SAGE)
USC

JAMIE LEAD
Environmental Nanoscience and Risk
USC

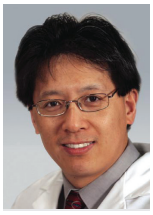
JOHN LEMASTERS
Cancer Drug Discovery
MUSC

GUSTAVO LEONE
Gastrointestinal Diagnostics
MUSC

LES LENERT
Healthcare Quality
MUSC

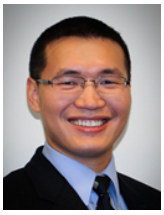
SUE LEVKOFF
SeniorSMART®
USC

XIAOMING LI
Healthcare Quality
USC



ZIHAI LI
Cancer Stem Cell Biology and Therapy
MUSC

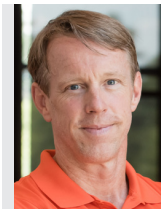
SHELDON E. LITWIN
Molecular Proteomics in Cardiovascular Disease and Prevention
MUSC



HESHING LIU
Brain Imaging
MUSC

SCOTT MASON
Supply Chain Optimization and Logistics
Clemson

SALLY MCKEE
Cyberinstitute
Clemson



LAINE MEARS
Automotive Manufacturing
Clemson

ANAND S. MEHTA
Proteomics
MUSC

STEPHANE MEYSTRE
Translational Biomedical Informatics
MUSC

MARTIN MORAD
Regenerative Medicine
USC

MITZI NAGARKATTI
Cancer Drug Discovery
USC

GAVIN NAYLOR
Marine Genomics
MUSC

DEEPAK NIHALANI
Renal Disease Biomarkers
MUSC

JIHAD OBEID
Clinical Effectiveness and Patient Safety
MUSC

BESIM OGRETMEN
Lipidomics Pathobiology and Therapy
MUSC

CHRISTIAAN PAREDIS
Automotive Systems Integration
Clemson

JOHN REGALBUTO
Catalysis for Renewable Fuels
USC

BAERBEL ROHRER
Vision Science
MUSC

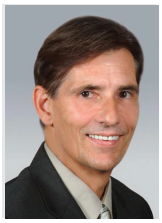
IGOR RONINSON
Translational Cancer Therapeutics
USC

CHRIS RORDEN
Brain Imaging
USC

JOHN SCHAEFER
Clinical Effectiveness and Patient Safety
MUSC

SOUVIK SEN
Stroke
USC

KENNETH TEW
Translational Cancer Therapeutics
MUSC



FRANK TRIEBER
Technology Center to Enhance Healthful Lifestyles
MUSC

BETTY TSAO
Inflammation and Fibrosis Research
MUSC

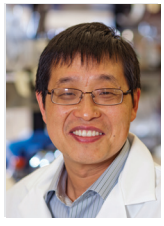
JEFFERY TWISS
Childhood Neurotherapeutics
USC

MAREK URBAN
Advanced Fiber Materials
Clemson

MICHAEL VAN TOOREN
Multifunctional Materials & Structures
USC

DELIA WEST
Technology Center to Enhance Healthful Lifestyles
USC

PATRICK WOSTER
Cancer Drug Discovery
MUSC



XUE ZHONG YU
Cancer Stem Cell Biology and Therapy
MUSC

Cancer biologist leads team in unraveling cellular activity

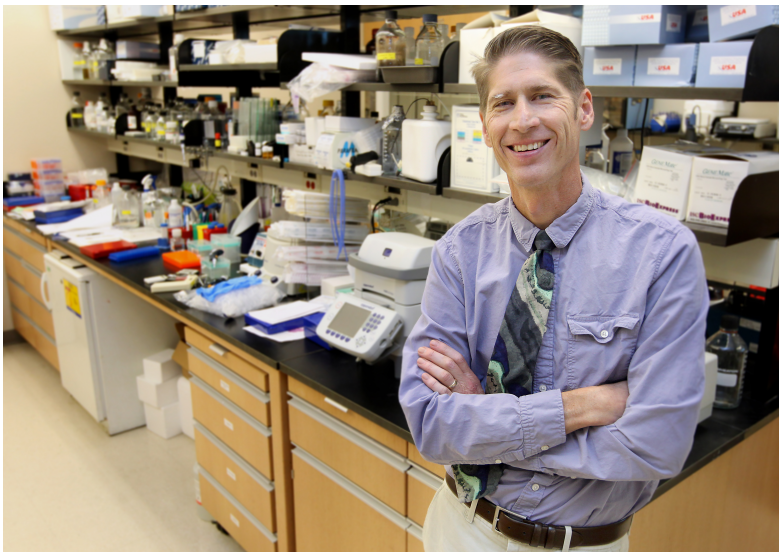
Research details functional breakdowns that lead to cancer, point to therapeutic possibilities

Leslie Cantu | cantul@musc.edu

MUSC
MEDICAL UNIVERSITY of SOUTH CAROLINA

Generations of high school students have memorized the basic phases of cell division — and more than likely forgotten them by the time summer rolls around. But as class after class has labored over its four distinct phases — G1, S, G2 and mitosis — researchers in the lab have been painstakingly adding to the body of knowledge of precisely how each phase is accomplished. By revealing what occurs when everything goes as planned, they also have shown how things can go awry.

J. Alan Diehl, Ph.D., the SmartState endowed chair in lipidomics, pathobiology and therapy and associate director of basic sciences at the Hollings Cancer Center, has devoted his career to studying how a breakdown in normal pathways gives rise to cancer. The National Institutes of Health recently awarded Diehl an additional $1.6 million to continue the work he began in 2000. The grant will enable him to continue this work through 2023.



A National Institutes of Health grant will enable Dr. Alan Diehl to continue studying the inner workings of cell division. When cell division goes wrong, it can lead to cancer. Photo by Sarah Pack

Research, he said, starts with a basic question: "How does this work?"

"What I tell students and postdocs is, if you ask a good, relevant question and you develop experiments that answer that question, you will see opportunities to translate this to treatments," he said.

However, you can't necessarily predict where those treatment opportunities will arise, he said.

"Sometimes, it's not the enzyme itself; it's something that it does. It triggers a vulnerability in the tumor cell that you would have had no idea was there unless you spent some time doing what appears to be very esoteric research, answering esoteric questions," he said.The essence of his work is figuring out what controls the expression of particular proteins in a normal cell and what happens to those proteins in a cancer cell. His lab has found that these proteins take on new functions though their inherent actions haven't changed.

"It's doing something that it shouldn't do, and it's doing that because it's in the wrong place at the wrong time and not turned off when it should be," he said. Proteins called cyclins – so named because they're supposed to cycle through synthesis and degradation — function within the nucleus of a cell. Cyclin D1 helps regulate the G1 phase of cell division. When its work is done, it's supposed to be ejected into the cytoplasm and destroyed. If it instead remains in the nucleus, it's "turned on" indefinitely.

Cyclin D1 is well studied because it's long been known to be dysregulated in multiple cancers, including metastatic breast cancer, head and neck cancers, endometrial and uterine cancers and mantle cell lymphoma. In the past few years, the FDA has approved three new drugs that target the enzymes that partner with cyclin D1. The drugs are approved for certain types of metastatic breast cancer.

Less well studied are cyclins D2 and D3. Diehl's lab is looking at cyclin D3, and next year, he expects to publish a paper about its role. Cyclin D3 is mutated in patients with Burkitt lymphoma, but there's no published data yet about whether the mutation is a result of the cancer or is causing the cancer. The only clue is that cyclin D1 is cancer causing when it has a similar mutation. Researchers are studying how the accumulation and loss of cyclin D3 is regulated – how it turns on and off and why it's mutated more often in Burkitt lymphoma than in mantle cell lymphoma.

Once researchers understand the regulators of cyclins D2 and D3, they can start building models of diseases, and from there develop better treatments. Scientists have learned so much just by doing good, fundamental cell biology and biochemistry research, Diehl said.

While he can't predict what the next cancer-fighting drug will be, he said he can ask questions and recognize opportunities. "You can't always predict where those are going to be without doing the experiments and learning," he said.

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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.

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Columbia, South Carolina 29201

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

FINANCIAL AND COMPLIANCE REPORT

JUNE 30, 2018

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

YEAR ENDED JUNE 30, 2018

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SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

REVIEW BOARD
JUNE 30, 2018

NAME	POSITION	APPOINTMENT
Jason Premo	Chair	Chair, Senate Finance Committee
Karoly Kerekes	Vice-Chair	President Pro Tempore of the Senate
Lisa Main	Secretary	Speaker of the House
Robert W. Pearce, Jr.	Member	Speaker of the House
Charles W. Garnett	Member	Governor
Melvin C. Williams	Member	Governor
Roberta Bankhead Wood	Member	Chair, House Ways and Means Committee
James P. Clements	Ex-Officio	President, Clemson Univ.
David J. Cole	Ex-Officio	President, Medical Univ. of S.C.
Harris Pastides	Ex-Officio	President, Univ. of S. C.

SmartState® Program
Transmittal Letter
Period: Fiscal Year 2017-2018

This transmittal letter provides an overview of the SmartState program and data covering the fiscal year ended June 30, 2018. This discussion and analysis should be read in conjunction with the financial statement and accompanying notes. The financial statements have been audited by an independent auditor (Mauldin & Jenskins) 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 2010[1] 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 2017.

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 has18 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 codifying 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. At the request of the Department of Commerce, the awards for this component of the SmartState Program have not been made. However, during the 2015-2016 legislative session, the SC General Assembly approved Proviso 117.139[2], which states that the SmartState Endowed Chairs Program funds earmarked for Commerce Awards shall be transferred by the Commission on Higher Education to the Department of Commerce's Applied Research Centers by August 1, 2016. The program fund amount of $2.8 million was transferred to the Department of Commerce on July 25, 2016.

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

[2] Part 1B Proviso 117.139, FY 2015-16, states: The Endowed Chairs Program funds that have been set aside for "Commerce Awards" shall be transferred by the Commission on Higher Education to the Department of Commerce's Applied Research Centers by August 1, 2016.

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.

2017-18 SmartState Summary Information

At the end of FY 2017-18, the program consists of 51 Centers with 85 approved SmartState Endowed Chairs of which 74 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 million[3] in SmartState awards granted by the Board through the end of FY 2017-18, $197.6 million in matching pledges have been committed by non-state sources. Of the committed pledges through FY 2017-18, $197.6 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 2017-18.

[3] 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 – 2017-18)

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[1]	$5 million
MUSC	Proteomics	2	$4 million
MUSC	Neuroscience	2[2]	$3 million
MUSC/USC/CoC	Marine Genomics	2[4]	$4 million
Total Awarded in 2002-2003		**12**	**$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	Innovation and Commercialization	1[4]	$2.5 million
MUSC/Clemson/USC	Regenerative Medicine	3	$5 million
MUSC/USC	Translational Cancer Therapeutics	2	$5 million
Total Awarded in 2003-2004		**10**	**$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	Innovation and Commercialization	[See 03-04]	$2.5 million
USC/Coastal Carolina	Tourism & Economic Development	1	$2 million
MUSC	Gastrointestinal Cancer Diagnostics	2[5]	$5 million
MUSC/USC	Cancer Drug Discovery	4	$5 million
MUSC	Vision Science	2[6]	$4.5 million
Total Awarded in 2004-2005		**10**	**$22 million**

[1]Revised to three chairs by act of the SmartState Review Board on January 12, 2009.
[2]Revised to two chairs by act of the SmartState Review Board on February 9, 2015.
[3]Revised to two chairs by act of the SmartState Review Board on February 23, 2010.
[4]The The Hydrogen Economy Center was approved during 2003-2004. Funding for one half of this Center was provided in 2003-04, the other half in 2004-2005. In 2014, the name changed to the SmartState Center for Innovation and Commercialization and revised to one chair.
[5] Increased from one to two endowed chairs by act of the SmartState Review Board on September 8, 2008.
[6]Revised to two chairs and relinquished USC as a collaborative partner by act of the SmartState Review Board on February 11, 2014.

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[7]	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[8]	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 [9]	3	$5 million
MUSC	Tobacco-Related Malignancy	2	$5 million
MUSC/USC	Stroke	3	$5 million
Total Awarded in 2006-2007		**14**	**$32 million**

[5]

[7]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.
[8]The state award total for this Center was revised from $5 million to $2 million by the SmartState Review Board on June 11, 2012.
[9]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[10]	3	$3.6 million
MUSC/USC	Medication Safety & Efficacy[11]	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[12]	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**

[10]The Cancer Disparities Center of Economic Excellence was approved in 2008-2009. Funding was provided from 2007-2008 dollars.

[11]The Medication Safety & Efficacy Center was approved in 2008-2009. Funding was provided from 2007-2008 dollars.

[12]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	Multifunctional Materials and Structures	1	$2 million
MUSC	Translational Biomedical Informatics	1	$2 million
Total Awarded in 2012-2013		**3**	**$6 million**

Program Totals[1]	
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 Appointed)**	**State Funds Drawn**
Clemson University	13	16	13 (3)	$43,000,000
University of South Carolina	18	28	24 (4)	$66,500,000
Medical University of South Carolina	20	41	34 (7)	$88,100,000
TOTALS	51	85	71 (14)	**$197.6 million**

[1]Program totals are as of fiscal year end June 30, 2017. 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 as of November 2018. 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

Report on the Financial Statement

We have audited the total columns for Clemson University, the Medical University of South Carolina, and the University of South Carolina included in the accompanying Statement of Program Revenues, Expenditures and Changes in Fund Balances of the **South Carolina Centers of Economic Excellence** for the year ended June 30, 2018, and the related notes (the financial statement).

Management's Responsibility for the Financial Statement

Management is responsible for the preparation and fair presentation of this financial statement 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 the financial statement that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the financial statement based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statement. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statement referred to above presents fairly, in all material respects, the revenues, expenditures and changes in fund balances of each university within the South Carolina Centers of Economic Excellence for the year ended June 30, 2018, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

We draw attention to Note 2 to the financial statement, which describes that the accompanying financial statement was prepared for the purpose of complying with the South Carolina Research Centers of Economic Excellence Act and are not intended to be a complete presentation of the South Carolina Centers of Economic Excellence's financial position. Our opinions are not modified with respect to this matter.

Other Matters

Other Information

Our audit was conducted for the purpose of forming opinions on the total column for each university in the financial statement. The supplementary information, as presented in the statement and as listed in the table of contents, and the transmittal letter, are presented for purposes of additional analysis and are not a required part of the financial statement.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statement. Such information has been subjected to the auditing procedures applied in the audit of the financial statement and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statement or to the financial statement itself, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the financial statement as a whole.

The transmittal letter has not been subjected to the auditing procedures applied in the audit of the financial statement, and accordingly, we do not express an opinion or provide any assurance on it.

Columbia, South Carolina
December 20, 2018

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
STATEMENT OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES - CONSOLIDATED SUMMARY
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ 1,011	$ 60,078	$ -	$ -	**$ 61,089**	$ -	$ -	$ -	$ 354,993	**$ 354,993**
Other contributions/revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	1,011	60,078	-	-	**61,089**	-	-	-	354,993	**354,993**
Investment Income										
Realized gain (loss)	-	-	-	1,048,566	**1,048,566**	-	-	-	24,437,347	**24,437,347**
Unrealized gain (loss)	-	-	-	8,198,221	**8,198,221**	-	-	-	(13,575,293)	**(13,575,293)**
Endowment income	-	-	-	(101,259)	**(101,259)**	-	-	-	1,110,756	**1,110,756**
Total investment income (loss)	-	-	-	9,145,528	**9,145,528**	-	-	-	11,972,810	**11,972,810**
Total revenue	1,011	60,078	-	9,145,528	**9,206,617**	-	-	-	12,327,803	**12,327,803**
Expenditures										
Personal services	-	-	-	1,478,330	**1,478,330**	-	-	-	2,501,583	**2,501,583**
Fringe	-	-	-	428,277	**428,277**	-	-	-	858,957	**858,957**
Travel	-	-	-	145,532	**145,532**	-	-	-	81,387	**81,387**
Subrecipients	-	-	-	-	**-**	-	-	115,000	(15,506)	**99,494**
Supplies	-	-	-	88,664	**88,664**	-	-	-	475,867	**475,867**
Contractual	-	-	-	-	**-**	-	-	-	1,357,710	**1,357,710**
Tuition assistance	-	-	-	86,188	**86,188**	-	-	-	-	**-**
Fixed charges	-	-	-	-	**-**	-	-	-	64,139	**64,139**
Administrative fees	-	-	1,000	438,571	**439,571**	-	-	-	-	**-**
Other	-	-	-	-	**-**	-	-	-	290,694	**290,694**
Professional & other fees	-	-	-	-	**-**	-	-	-	311,741	**311,741**
Equipment	-	-	-	90,257	**90,257**	-	-	-	935,440	**935,440**
Total expenditures	-	-	1,000	2,755,819	**2,756,819**	-	-	115,000	6,862,012	**6,977,012**
Excess (deficiency) of revenues over (under) expenditures	1,011	60,078	(1,000)	6,389,709	**6,449,798**	-	-	(115,000)	5,465,791	**5,350,791**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	43,000,000	35,487,523	156,980	33,101,295	**111,745,798**	88,099,999	34,996,979	12,221,288	25,055,890	**160,374,156**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	506,560	**506,560**
Fund Balance - June 30, 2017, as restated	43,000,000	35,487,523	156,980	33,101,295	**111,745,798**	88,099,999	34,996,979	12,221,288	25,562,450	**160,880,716**
Fund Balance - June 30, 2018	$ 43,001,011	$ 35,547,601	$ 155,980	$ 39,491,004	**$ 118,195,596**	$ 88,099,999	$ 34,996,979	$ 12,106,288	$ 31,028,241	**$ 166,231,507**

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
STATEMENT OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES - CONSOLIDATED SUMMARY
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ 3,620	$ 8,000	$ -	**$ 11,620**	$ 1,011	$ 63,698	$ 8,000	$ 354,993	**$ 427,702**
Other contributions/revenue	-	-	7,728	37,328	**45,056**	-	-	7,728	37,328	**45,056**
Total contribution revenue	-	3,620	15,728	37,328	**56,676**	1,011	63,698	15,728	392,321	**472,758**
Investment Income										
Realized gain (loss)	-	-	-	1,415,180	**1,415,180**	-	-	-	26,901,093	**26,901,093**
Unrealized gain (loss)	-	-	-	3,422,209	**3,422,209**	-	-	-	(1,954,863)	**(1,954,863)**
Endowment income	-	-	11,475	484,102	**495,577**	-	-	11,475	1,493,599	**1,505,074**
Total investment income (loss)	-	-	11,475	5,321,491	**5,332,966**	-	-	11,475	26,439,829	**26,451,304**
Total revenue	-	3,620	27,203	5,358,819	**5,389,642**	1,011	63,698	27,203	26,832,150	**26,924,062**
Expenditures										
Personal services	-	-	3,719	2,277,951	**2,281,670**	-	-	3,719	6,257,864	**6,261,583**
Fringe	-	-	-	299,006	**299,006**	-	-	-	1,586,240	**1,586,240**
Travel	-	-	5,157	225,877	**231,034**	-	-	5,157	452,796	**457,953**
Subrecipients	-	-	-	-	**-**	-	-	128,679	263,342	**392,021**
Supplies	-	-	13,679	278,848	**292,527**	-	-	-	564,531	**564,531**
Contractual	-	-	-	-	**-**	-	-	3,000	1,501,474	**1,504,474**
Tuition assistance	-	-	3,000	143,764	**146,764**	-	-	-	86,188	**86,188**
Fixed charges	-	-	-	-	**-**	-	-	-	64,139	**64,139**
Administrative fees	-	-	-	423,284	**423,284**	-	-	1,000	861,855	**862,855**
Other	-	-	42,221	1,054,118	**1,096,339**	-	-	42,221	1,344,812	**1,387,033**
Professional & other fees	-	-	-	-	**-**	-	-	-	311,741	**311,741**
Equipment	-	-	1,617	413,711	**415,328**	-	-	1,617	1,439,408	**1,441,025**
Total expenditures	-	-	69,393	5,116,559	**5,185,952**	-	-	185,393	14,734,390	**14,919,783**
Excess (deficiency) of revenues over (under) expenditures	-	3,620	(42,190)	242,260	**203,690**	1,011	63,698	(158,190)	12,097,760	**12,004,279**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	66,500,000	29,808,659	1,639,395	14,046,403	**111,994,457**	197,599,999	100,293,161	14,017,663	72,203,588	**384,114,411**
Prior Period Adjustment	-	-	-	60,785	**60,785**	-	-	-	567,345	**567,345**
Fund Balance - June 30, 2017, as restated	66,500,000	29,808,659	1,639,395	14,107,188	**112,055,242**	197,599,999	100,293,161	14,017,663	72,770,933	**384,681,756**
Fund Balance - June 30, 2018	$ 66,500,000	$ 29,812,279	$ 1,597,205	$ 14,349,448	**$ 112,258,932**	$ 197,601,010	$ 100,356,859	$ 13,859,473	$ 84,868,693	**$ 396,686,035**

See 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.

NOTE 1. DESCRIPTION OF PROGRAM (CONTINUED)

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.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Measurement Focus, Basis of Accounting and Financial Statement Presentation:

The Program's financial statement was prepared solely for the purpose of complying with Chapter 75 Section 2-75-10, the South Carolina Research Centers of Economic Excellence Act. The financial statements are not a complete presentation of the financial statements of the Program but one that is otherwise in accordance with Generally Accepted Accounting Principles.

The Program's fund financial statement is reported using the c*urrent financial resources measurement focus* and the *modified accrual basis of accounting*. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the Program considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting.

Property and Equipment:

Property and equipment purchased with program funds are recorded as expenditures in the statement of program revenues, expenditures and changes in fund balances and 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.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

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 fund balance at the date of the financial statements and the reported amounts of revenues and expenditures 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.

Realized and Unrealized Investment Gains and Losses and Investment Income:

Realized and unrealized gains and losses and income from the investments in the master investment accounts at each of the Research Institution Foundations and at each of the Research Institutions are allocated periodically, including at year end, to the individual Smart State accounts based on the relationship of the fair value of each individual account to the total fair value of the master investment accounts, and adjusted for additions to or deductions from those accounts.

NOTE 3. ASSETS MAINTAINED BY RESEARCH INSTITUTIONS/FUND BALANCE

The fund balance resulting from program activities are maintained by the research institutions, and is held by the universities, their respective foundations, or by the State Treasurer. At June 30, 2018, fund balance consisted of cash and investments maintained by the research institutions for program purposes and was as follows:

Clemson University	**$ 118,195,596**
Medical University of South Carolina	**166,231,507**
University of South Carolina	**112,258,932**
Total	**$ 396,686,035**

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 expenditures. 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, 2018:

		Federal Grants Used as Non-State Matching Funds	
Institution	Proposal	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	1,265,030
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	1,476,419
MUSC	Tobacco-Related Malignancies	3,221,264	2,402,853
MUSC	Renal Disease Biomarkers	268,520	254,406
MUSC	Cancer Stem Cell	2,457,288	1,851,876
MUSC	Advanced Tissue Biofabrication	2,578,100	2,502,146
MUSC	Lipidomics	1,624,983	1,523,925
USC	Nanostructures	1,444,820	1,444,820
USC	Brain Imaging	1,336,000	1,336,000
USC	Polymer Nanocomposites	2,020,110	2,020,110
USC	Hydrogen Fuel Cell Economy	661,451	661,451
USC	Renewable Fuel Cells	970,516	970,516
USC	Solid Oxide Fuel Cells	1,106,179	1,106,179
USC	Childhood Neurotherapeutics	1,243,106	1,243,106
USC	Data Analysis	533,444	533,444
USC	Nanoenvironmental Research and Assessment	731,822	731,822
USC	Nuclear Science and Energy	848,512	842,408
USC	General Atomics Center for the Development of Translational Nuclear Technology	1,105,531	1,105,531
		$ 46,496,044	$ 36,399,447

NOTE 5. RESTATEMENT OF PRIOR PERIOD FUND BALANCES

Management became aware in 2018 that at June 30, 2017, the consolidated fund balances were understated. At June 30, 2017, USC fund balances for Childhood Neuro Therapeutics were understated by $60,785 due to erroneously not reporting a fund; MUSC fund balances for Medication Safety and Efficacy were understated by $81,046; fund balances for Advance Tissue Bio-fabrication were understated by $318,485; and fund balances for Drug Discovery in Cancer were understated by $54,544. These adjustments were required due to not recording in the MUSC financial statements fund balances for Centers at Clemson University and the University of South Carolina where MUSC was the fiscal agent. In addition, the fund balances for Marine Genomics were understated by $52,485, which was caused by a formula error in the internally prepared financial statements. As result, the consolidated cumulative fund balances for the year ended June 30, 2017 were restated. A summary of the understatement is shown below:

Fund Balances	As Reported	Adjustment	As Restated
USC	**$ 111,994,457**	**$ 60,785**	**$ 112,055,242**
MUSC	**$ 160,374,156**	**$ 506,560**	**$ 160,880,716**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Automotive Design and Development					Automotive Manufacturing Integration				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**
Contribution Revenue										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	102,896	**102,896**	-	-	-	133,613	**133,613**
Unrealized gain (loss)	-	-	-	814,091	**814,091**	-	-	-	1,021,228	**1,021,228**
Endowment income	-	-	-	(10,693)	**(10,693)**	-	-	-	(19,134)	**(19,134)**
Total investment income (loss)	-	-	-	906,294	**906,294**	-	-	-	1,135,707	**1,135,707**
Total revenue	-	-	-	906,294	**906,294**	-	-	-	1,135,707	**1,135,707**
Expenditures										
Personal services	-	-	-	155,500	**155,500**	-	-	-	158,918	**158,918**
Fringe	-	-	-	44,120	**44,120**	-	-	-	44,706	**44,706**
Travel	-	-	-	13,397	**13,397**	-	-	-	18,514	**18,514**
Supplies	-	-	-	4,973	**4,973**	-	-	-	4,058	**4,058**
Tuition assistance	-	-	-	1,710	**1,710**	-	-	-	7,032	**7,032**
Other	-	-	-	23,732	**23,732**	-	-	-	28,753	**28,753**
Equipment	-	-	-	6,226	**6,226**	-	-	-	1,060	**1,060**
Total expenses	-	-	-	249,658	**249,658**	-	-	-	263,041	**263,041**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	656,636	**656,636**	-	-	-	872,666	**872,666**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	2,845,991	-	3,187,447	**11,033,438**	5,000,000	5,000,000	-	4,110,844	**14,110,844**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	5,000,000	2,845,991	-	3,187,447	**11,033,438**	5,000,000	5,000,000	-	4,110,844	**14,110,844**
Fund Balance - June 30, 2018	$ 5,000,000	$ 2,845,991	$ -	$ 3,844,083	**$ 11,690,074**	$ 5,000,000	$ 5,000,000	$ -	$ 4,983,510	**$ 14,983,510**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	143,622	**143,622**	-	-	-	102,545	**102,545**
Unrealized gain (loss)	-	-	-	1,096,087	**1,096,087**	-	-	-	822,648	**822,648**
Endowment income	-	-	-	(20,840)	**(20,840)**	-	-	-	(8,945)	**(8,945)**
Total investment income (loss)	-	-	-	1,218,869	**1,218,869**	-	-	-	916,248	**916,248**
Total revenue	-	-	-	1,218,869	**1,218,869**	-	-	-	916,248	**916,248**
Expenditures										
Personal services	-	-	-	163,220	**163,220**	-	-	-	224,873	**224,873**
Fringe	-	-	-	45,893	**45,893**	-	-	-	73,258	**73,258**
Travel	-	-	-	8,851	**8,851**	-	-	-	23,933	**23,933**
Supplies	-	-	-	615	**615**	-	-	-	18,493	**18,493**
Tuition assistance	-	-	-	5,120	**5,120**	-	-	-	5,502	**5,502**
Other	-	-	-	17,626	**17,626**	-	-	1,000	51,071	**52,071**
Equipment	-	-	-	15,919	**15,919**	-	-	-	-	**-**
Total expenses	-	-	-	257,244	**257,244**	-	-	1,000	397,130	**398,130**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	961,625	**961,625**	-	-	(1,000)	519,118	**518,118**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	5,000,000	114,921	5,150,398	**15,265,319**	5,000,000	3,050,852	11,883	3,534,946	**11,597,681**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	5,000,000	5,000,000	114,921	5,150,398	**15,265,319**	5,000,000	3,050,852	11,883	3,534,946	**11,597,681**
Fund Balance - June 30, 2018	$ 5,000,000	$ 5,000,000	$ 114,921	$ 6,112,023	**$ 16,226,944**	$ 5,000,000	$ 3,050,852	$ 10,883	$ 4,054,064	**$ 12,115,799**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ 1,011	$ -	$ -	$ -	**$ 1,011**
Total contribution revenue	-	-	-	-	**-**	1,011	-	-	-	**1,011**
Investment Income										
Realized gain (loss)	-	-	-	65,962	**65,962**	-	-	-	53,596	**53,596**
Unrealized gain (loss)	-	-	-	519,870	**519,870**	-	-	-	408,838	**408,838**
Endowment income	-	-	-	(7,102)	**(7,102)**	-	-	-	(7,478)	**(7,478)**
Total investment income (loss)	-	-	-	578,730	**578,730**	-	-	-	454,956	**454,956**
Total revenue	-	-	-	578,730	**578,730**	1,011	-	-	454,956	**455,967**
Expenditures										
Personal services	-	-	-	186,115	**186,115**	-	-	-	134,187	**134,187**
Fringe	-	-	-	52,370	**52,370**	-	-	-	36,542	**36,542**
Travel	-	-	-	14,427	**14,427**	-	-	-	15,953	**15,953**
Supplies	-	-	-	10,571	**10,571**	-	-	-	1,642	**1,642**
Tuition assistance	-	-	-	12,800	**12,800**	-	-	-	18,979	**18,979**
Other	-	-	-	64,248	**64,248**	-	-	-	2,240	**2,240**
Equipment	-	-	-	3,807	**3,807**	-	-	-	5,683	**5,683**
Total expenses	-	-	-	344,338	**344,338**	-	-	-	215,226	**215,226**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	234,392	**234,392**	1,011	-	-	239,730	**240,741**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	2,000,000	-	2,002,667	**7,002,667**	2,000,000	2,000,000	-	1,336,647	**5,336,647**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	3,000,000	2,000,000	-	2,002,667	**7,002,667**	2,000,000	2,000,000	-	1,336,647	**5,336,647**
Fund Balance - June 30, 2018	$ 3,000,000	$ 2,000,000	$ -	$ 2,237,059	**$ 7,237,059**	$ 2,001,011	$ 2,000,000	$ -	$ 1,576,377	**$ 5,577,388**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	54,587	**54,587**	-	-	-	98,795	**98,795**
Unrealized gain (loss)	-	-	-	414,669	**414,669**	-	-	-	762,907	**762,907**
Endowment income	-	-	-	(7,319)	**(7,319)**	-	-	-	(12,476)	**(12,476)**
Total investment income (loss)	-	-	-	461,937	**461,937**	-	-	-	849,226	**849,226**
Total revenue	-	-	-	461,937	**461,937**	-	-	-	849,226	**849,226**
Expenditures										
Personal services	-	-	-	104,814	**104,814**	-	-	-	188,350	**188,350**
Fringe	-	-	-	20,812	**20,812**	-	-	-	59,047	**59,047**
Travel	-	-	-	13,040	**13,040**	-	-	-	18,196	**18,196**
Supplies	-	-	-	2,996	**2,996**	-	-	-	408	**408**
Tuition assistance	-	-	-	4,068	**4,068**	-	-	-	8,259	**8,259**
Other	-	-	-	17,239	**17,239**	-	-	-	22,458	**22,458**
Equipment	-	-	-	1,459	**1,459**	-	-	-	-	**-**
Total expenses	-	-	-	164,428	**164,428**	-	-	-	296,718	**296,718**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	297,509	**297,509**	-	-	-	552,508	**552,508**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	2,000,000	-	1,647,677	**5,647,677**	4,000,000	3,482,500	30,176	3,342,990	**10,855,666**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	2,000,000	2,000,000	-	1,647,677	**5,647,677**	4,000,000	3,482,500	30,176	3,342,990	**10,855,666**
Fund Balance - June 30, 2018	$ 2,000,000	$ 2,000,000	$ -	$ 1,945,186	**$ 5,945,186**	$ 4,000,000	$ 3,482,500	$ 30,176	$ 3,895,498	**$ 11,408,174**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	52,586	**52,586**	-	-	-	54,705	**54,705**
Unrealized gain (loss)	-	-	-	473,774	**473,774**	-	-	-	415,124	**415,124**
Endowment income	-	-	-	3,262	**3,262**	-	-	-	(8,021)	**(8,021)**
Total investment income (loss)	-	-	-	529,622	**529,622**	-	-	-	461,808	**461,808**
Total revenue	-	-	-	529,622	**529,622**	-	-	-	461,808	**461,808**
Expenditures										
Personal services	-	-	-	30,709	**30,709**	-	-	-	47,134	**47,134**
Fringe	-	-	-	11,702	**11,702**	-	-	-	10,400	**10,400**
Travel	-	-	-	3,872	**3,872**	-	-	-	11,598	**11,598**
Supplies	-	-	-	701	**701**	-	-	-	43,254	**43,254**
Tuition assistance	-	-	-	13,148	**13,148**	-	-	-	9,570	**9,570**
Other	-	-	-	114,661	**114,661**	-	-	-	81,058	**81,058**
Equipment	-	-	-	2,579	**2,579**	-	-	-	53,524	**53,524**
Total expenses	-	-	-	177,372	**177,372**	-	-	-	256,538	**256,538**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	352,250	**352,250**	-	-	-	205,270	**205,270**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	2,000,000	-	2,050,313	**6,050,313**	2,000,000	2,006,799	-	1,543,024	**5,549,823**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	2,000,000	2,000,000	-	2,050,313	**6,050,313**	2,000,000	2,006,799	-	1,543,024	**5,549,823**
Fund Balance - June 30, 2018	$ 2,000,000	$ 2,000,000	$ -	$ 2,402,563	**$ 6,402,563**	$ 2,000,000	$ 2,006,799	$ -	$ 1,748,294	**$ 5,755,093**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Cyber-Institute					Sustainable Development				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**
Contribution Revenue										
Non-state matching funds	$ -	$ 60,078	$ -	$ -	**$ 60,078**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	60,078	-	-	**60,078**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	42,025	**42,025**	-	-	-	93,840	**93,840**
Unrealized gain (loss)	-	-	-	333,546	**333,546**	-	-	-	733,444	**733,444**
Endowment income	-	-	-	(1,604)	**(1,604)**	-	-	-	(10,183)	**(10,183)**
Total investment income (loss)	-	-	-	373,967	**373,967**	-	-	-	817,101	**817,101**
Total revenue	-	60,078	-	373,967	**434,045**	-	-	-	817,101	**817,101**
Expenditures										
Personal services	-	-	-	3,889	**3,889**	-	-	-	80,621	**80,621**
Fringe	-	-	-	1,209	**1,209**	-	-	-	28,218	**28,218**
Travel	-	-	-	-	**-**	-	-	-	3,751	**3,751**
Supplies	-	-	-	-	**-**	-	-	-	953	**953**
Tuition assistance	-	-	-	-	**-**	-	-	-	-	**-**
Other	-	-	-	-	**-**	-	-	-	15,485	**15,485**
Equipment	-	-	-	-	**-**	-	-	-	-	**-**
Total expenses	-	-	-	5,098	**5,098**	-	-	-	129,028	**129,028**
Excess (deficiency) of revenues over (under) expenditures	-	60,078	-	368,869	**428,947**	-	-	-	688,073	**688,073**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	1,089,923	-	1,386,105	**4,476,028**	4,000,000	3,011,458	-	3,066,631	**10,078,089**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	2,000,000	1,089,923	-	1,386,105	**4,476,028**	4,000,000	3,011,458	-	3,066,631	**10,078,089**
Fund Balance - June 30, 2018	$ 2,000,000	$ 1,150,001	$ -	$ 1,754,974	**$ 4,904,975**	$ 4,000,000	$ 3,011,458	$ -	$ 3,754,704	**$ 10,766,162**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ 1,011	$ 60,078	$ -	$ -	**$ 61,089**
Total contribution revenue	-	-	-	-	**-**	1,011	60,078	-	-	**61,089**
Investment Income										
Realized gain (loss)	-	-	-	49,794	**49,794**	-	-	-	1,048,566	**1,048,566**
Unrealized gain (loss)	-	-	-	381,995	**381,995**	-	-	-	8,198,221	**8,198,221**
Endowment income	-	-	-	9,274	**9,274**	-	-	-	(101,259)	**(101,259)**
Total investment income (loss)	-	-	-	441,063	**441,063**	-	-	-	9,145,528	**9,145,528**
Total revenue	-	-	-	441,063	**441,063**	1,011	60,078	-	9,145,528	**9,206,617**
Expenditures										
Personal services	-	-	-	-	**-**	-	-	-	1,478,330	**1,478,330**
Fringe	-	-	-	-	**-**	-	-	-	428,277	**428,277**
Travel	-	-	-	-	**-**	-	-	-	145,532	**145,532**
Supplies	-	-	-	-	**-**	-	-	-	88,664	**88,664**
Tuition assistance	-	-	-	-	**-**	-	-	-	86,188	**86,188**
Other	-	-	-	-	**-**	-	-	1,000	438,571	**439,571**
Equipment	-	-	-	-	**-**	-	-	-	90,257	**90,257**
Total expenses	-	-	-	-	**-**	-	-	1,000	2,755,819	**2,756,819**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	441,063	**441,063**	1,011	60,078	(1,000)	6,389,709	**6,449,798**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	2,000,000	-	741,606	**4,741,606**	43,000,000	35,487,523	156,980	33,101,295	**111,745,798**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	2,000,000	2,000,000	-	741,606	**4,741,606**	43,000,000	35,487,523	156,980	33,101,295	**111,745,798**
Fund Balance - June 30, 2018	$ 2,000,000	$ 2,000,000	$ -	$ 1,182,669	**$ 5,182,669**	$ 43,001,011	$ 35,547,601	$ 155,980	$ 39,491,004	**$ 118,195,596**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Proteomics					Neurosciences				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**
Contribution Revenue										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 105	**$ 105**
Total contribution revenue	-	-	-	-	**-**	-	-	-	105	**105**
Investment Income										
Realized gain (loss)	-	-	-	1,071,664	**1,071,664**	-	-	-	824,283	**824,283**
Unrealized gain (loss)	-	-	-	(616,162)	**(616,162)**	-	-	-	(473,047)	**(473,047)**
Endowment income	-	-	-	49,230	**49,230**	-	-	-	37,978	**37,978**
Total investment income (loss)	-	-	-	504,732	**504,732**	-	-	-	389,214	**389,214**
Total revenue	-	-	-	504,732	**504,732**	-	-	-	389,319	**389,319**
Expenditures										
Personal services	-	-	-	167,651	**167,651**	-	-	-	79,323	**79,323**
Fringe	-	-	-	42,908	**42,908**	-	-	-	28,034	**28,034**
Travel	-	-	-	29,033	**29,033**	-	-	-	-	**-**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	1,906	**1,906**	-	-	-	-	**-**
Contractual	-	-	-	63,042	**63,042**	-	-	-	33,030	**33,030**
Other	-	-	-	5,812	**5,812**	-	-	-	-	**-**
Fixed Charges	-	-	-	-	**-**	-	-	-	-	**-**
Professional & Other Fees	-	-	-	25,185	**25,185**	-	-	-	-	**-**
Equipment	-	-	-	363,385	**363,385**	-	-	-	-	**-**
Total expenditures	-	-	-	698,922	**698,922**	-	-	-	140,387	**140,387**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(194,190)	**(194,190)**	-	-	-	248,932	**248,932**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	4,000,000	1,254,266	660,098	1,080,798	**6,995,162**	3,000,000	900,350	770,829	1,068,913	**5,740,092**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	4,000,000	1,254,266	660,098	1,080,798	**6,995,162**	3,000,000	900,350	770,829	1,068,913	**5,740,092**
Fund Balance - June 30, 2018	$ 4,000,000	$ 1,254,266	$ 660,098	$ 886,608	**$ 6,800,972**	$ 3,000,000	$ 900,350	$ 770,829	$ 1,317,845	**$ 5,989,024**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -		$ 500	**$ 500**
Total contribution revenue	-	-	-	-	**-**	-	-	-	500	**500**
Investment Income										
Realized gain (loss)	-	-	-	744,938	**744,938**	-	-	-	1,087,729	**1,087,729**
Unrealized gain (loss)	-	-	-	(194,549)	**(194,549)**	-	-	-	(403,268)	**(403,268)**
Endowment income	-	-	-	34,521	**34,521**	-	-	-	39,733	**39,733**
Total investment income (loss)	-	-	-	584,910	**584,910**	-	-	-	724,194	**724,194**
Total revenue	-	-	-	584,910	**584,910**	-	-	-	724,694	**724,694**
Expenditures										
Personal services	-	-	-	53,752	**53,752**	-	-	-	74,512	**74,512**
Fringe	-	-	-	19,709	**19,709**	-	-	-	38,109	**38,109**
Travel	-	-	-	358	**358**	-	-	-	4,874	**4,874**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	-	**-**	-	-	-	31,178	**31,178**
Contractual	-	-	-	52,049	**52,049**	-	-	-	62,503	**62,503**
Other	-	-	-	76,150	**76,150**	-	-	-	145,075	**145,075**
Fixed Charges	-	-	-	-	**-**	-	-	-	174	**174**
Professional & Other Fees	-	-	-	-	**-**	-	-	-	46,006	**46,006**
Equipment	-	-	-	-	**-**	-	-	-	517,987	**517,987**
Total expenditures	-	-	-	202,018	**202,018**	-	-	-	920,418	**920,418**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	382,892	**382,892**	-	-	-	(195,724)	**(195,724)**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	4,000,000	1,500,000	89,970	1,265,627	**6,855,597**	5,000,000	2,000,000	(239,884)	2,557,198	**9,317,314**
Prior Period Adjustment	-	-	-	52,485	**52,485**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	4,000,000	1,500,000	89,970	1,318,112	**6,908,082**	5,000,000	2,000,000	(239,884)	2,557,198	**9,317,314**
Fund Balance - June 30, 2018	$ 4,000,000	$ 1,500,000	$ 89,970	$ 1,701,004	**$ 7,290,974**	$ 5,000,000	$ 2,000,000	$ (239,884)	$ 2,361,474	**$ 9,121,590**

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YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	1,448,381	**1,448,381**	-	-	-	1,328,402	**1,328,402**
Unrealized gain (loss)	-	-	-	(828,831)	**(828,831)**	-	-	-	(761,908)	**(761,908)**
Endowment income	-	-	-	66,477	**66,477**	-	-	-	61,123	**61,123**
Total investment income (loss)	-	-	-	686,027	**686,027**	-	-	-	627,617	**627,617**
Total revenue	-	-	-	686,027	**686,027**	-	-	-	627,617	**627,617**
Expenditures										
Personal services	-	-	-	220,336	**220,336**	-	-	-	208,718	**208,718**
Fringe	-	-	-	76,084	**76,084**	-	-	-	53,663	**53,663**
Travel	-	-	-	364	**364**	-	-	-	5,458	**5,458**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	47,338	**47,338**	-	-	-	67,216	**67,216**
Contractual	-	-	-	60,430	**60,430**	-	-	-	89,531	**89,531**
Other	-	-	-	-	**-**	-	-	-	1,827	**1,827**
Fixed Charges	-	-	-	-	**-**	-	-	-	232	**232**
Professional & Other Fees	-	-	-	24,858	**24,858**	-	-	-	15,781	**15,781**
Equipment	-	-	-	-	**-**	-	-	-	7,296	**7,296**
Total expenditures	-	-	-	429,410	**429,410**	-	-	-	449,722	**449,722**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	256,617	**256,617**	-	-	-	177,895	**177,895**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	1,998,095	-	1,613,026	**8,611,121**	5,000,000	1,604,510	-	1,575,967	**8,180,477**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	54,544	**54,544**
Fund Balance - June 30, 2017, as restated	5,000,000	1,998,095	-	1,613,026	**8,611,121**	5,000,000	1,604,510	-	1,630,511	**8,235,021**
Fund Balance - June 30, 2018	$ 5,000,000	$ 1,998,095	$ -	$ 1,869,643	**$ 8,867,738**	$ 5,000,000	$ 1,604,510	$ -	$ 1,808,406	**$ 8,412,916**

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YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	1,435,310	**1,435,310**	-	-	-	1,295,306	**1,295,306**
Unrealized gain (loss)	-	-	-	(826,963)	**(826,963)**	-	-	-	(750,079)	**(750,079)**
Endowment income	-	-	-	65,666	**65,666**	-	-	-	59,030	**59,030**
Total investment income (loss)	-	-	-	674,013	**674,013**	-	-	-	604,257	**604,257**
Total revenue	-	-	-	674,013	**674,013**	-	-	-	604,257	**604,257**
Expenditures										
Personal services	-	-	-	217,286	**217,286**	-	-	-	110,652	**110,652**
Fringe	-	-	-	79,913	**79,913**	-	-	-	38,176	**38,176**
Travel	-	-	-	-	**-**	-	-	-	3,463	**3,463**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	0	**-**	-	-	-	34,566	**34,566**
Contractual	-	-	-	83,995	**83,995**	-	-	-	78,480	**78,480**
Other	-	-	-	-	**-**	-	-	-	910	**910**
Fixed Charges	-	-	-	-	**-**	-	-	-	-	**-**
Professional & Other Fees	-	-	-	-	**-**	-	-	-	3,032	**3,032**
Equipment	-	-	-	-	**-**	-	-	-	2,650	**2,650**
Total expenditures	-	-	-	381,194	**381,194**	-	-	-	271,929	**271,929**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	292,819	**292,819**	-	-	-	332,328	**332,328**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	2,000,000	619,366	1,854,939	**9,474,305**	4,500,000	1,883,774	1,003,532	1,562,342	**8,949,648**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	5,000,000	2,000,000	619,366	1,854,939	**9,474,305**	4,500,000	1,883,774	1,003,532	1,562,342	**8,949,648**
Fund Balance - June 30, 2018	$ 5,000,000	$ 2,000,000	$ 619,366	$ 2,147,758	**$ 9,767,124**	$ 4,500,000	$ 1,883,774	$ 1,003,532	$ 1,894,670	**$ 9,281,976**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	1,428,324	**1,428,324**	-	-	-	1,643,195	**1,643,195**
Unrealized gain (loss)	-	-	-	(819,732)	**(819,732)**	-	-	-	(944,891)	**(944,891)**
Endowment income	-	-	-	65,654	**65,654**	-	-	-	75,488	**75,488**
Total investment income (loss)	-	-	-	674,246	**674,246**	-	-	-	773,792	**773,792**
Total revenue	-	-	-	674,246	**674,246**	-	-	-	773,792	**773,792**
Expenditures										
Personal services	-	-	-	175,632	**175,632**	-	-	-	151,310	**151,310**
Fringe	-	-	-	64,424	**64,424**	-	-	-	55,476	**55,476**
Travel	-	-	-	3,993	**3,993**	-	-	-	3	**3**
Subrecipients	-	-	-	988	**988**	-	-	-	-	**-**
Supplies	-	-	-	760	**760**	-	-	-	926	**926**
Contractual	-	-	-	84,006	**84,006**	-	-	-	96,653	**96,653**
Other	-	-	-	-	**-**	-	-	-	10,441	**10,441**
Fixed Charges	-	-	-	51	**51**	-	-	-	17,723	**17,723**
Professional & Other Fees	-	-	-	2,067	**2,067**	-	-	-	-	**-**
Equipment	-	-	-	4,312	**4,312**	-	-	-	-	**-**
Total expenditures	-	-	-	336,233	**336,233**	-	-	-	332,532	**332,532**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	338,013	**338,013**	-	-	-	441,260	**441,260**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	2,000,000	-	1,449,273	**8,449,273**	5,000,000	3,518,805	1,197,319	1,075,661	**10,791,785**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	5,000,000	2,000,000	-	1,449,273	**8,449,273**	5,000,000	3,518,805	1,197,319	1,075,661	**10,791,785**
Fund Balance - June 30, 2018	$ 5,000,000	$ 2,000,000	$ -	$ 1,787,286	**$ 8,787,286**	$ 5,000,000	$ 3,518,805	$ 1,197,319	$ 1,516,921	**$ 11,233,045**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ 8,410	**$ 8,410**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	8,410	**8,410**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	1,496,993	**1,496,993**	-	-	-	1,558,391	**1,558,391**
Unrealized gain (loss)	-	-	-	(863,807)	**(863,807)**	-	-	-	(893,309)	**(893,309)**
Endowment income	-	-	-	68,478	**68,478**	-	-	-	71,650	**71,650**
Total investment income (loss)	-	-	-	701,664	**701,664**	-	-	-	736,732	**736,732**
Total revenue	-	-	-	710,074	**710,074**	-	-	-	736,732	**736,732**
Expenditures										
Personal services	-	-	-	100,678	**100,678**	-	-	-	186,738	**186,738**
Fringe	-	-	-	36,937	**36,937**	-	-	-	58,475	**58,475**
Travel	-	-	-	-	**-**	-	-	-	8,539	**8,539**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	18,432	**18,432**	-	-	-	4,107	**4,107**
Contractual	-	-	-	87,915	**87,915**	-	-	-	-	**-**
Other	-	-	-	949	**949**	-	-	-	483	**483**
Fixed Charges	-	-	-	2,062	**2,062**	-	-	-	-	**-**
Professional & Other Fees	-	-	-	803	**803**	-	-	-	97,890	**97,890**
Equipment	-	-	-	-	**-**	-	-	-	-	**-**
Total expenditures	-	-	-	247,776	**247,776**	-	-	-	356,232	**356,232**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	462,298	**462,298**	-	-	-	380,500	**380,500**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	1,671,812	1,637,613	1,916,847	**10,226,272**	5,000,000	2,500,000	654,251	1,586,859	**9,741,110**
Prior Period Adjustment	-	-	-			-	-	-		
Fund Balance - June 30, 2017, as restated	5,000,000	1,671,812	1,637,613	1,916,847	**10,226,272**	5,000,000	2,500,000	654,251	1,586,859	**9,741,110**
Fund Balance - June 30, 2018	$ 5,000,000	$ 1,671,812	$ 1,637,613	$ 2,379,145	**$ 10,688,570**	$ 5,000,000	$ 2,500,000	$ 654,251	$ 1,967,359	**$ 10,121,610**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -		$ -	$ -	**$ -**	$ -	$ -	$ -	$ 343,078	**$ 343,078**
Total contribution revenue	-	-	-	-	**-**	-	-	-	343,078	**343,078**
Investment Income										
Realized gain (loss)	-	-	-	1,269,206	**1,269,206**	-	-	-	1,382,449	**1,382,449**
Unrealized gain (loss)	-	-	-	(729,758)	**(729,758)**	-	-	-	(775,856)	**(775,856)**
Endowment income	-	-	-	58,305	**58,305**	-	-	-	62,232	**62,232**
Total investment income (loss)	-	-	-	597,753	**597,753**	-	-	-	668,825	**668,825**
Total revenue	-	-	-	597,753	**597,753**	-	-	-	1,011,903	**1,011,903**
Expenditures										
Personal services	-	-	-	147,832	**147,832**	-	-	-	53,642	**53,642**
Fringe	-	-	-	54,165	**54,165**	-	-	-	19,674	**19,674**
Travel	-	-	-	3,878	**3,878**	-	-	-	2,032	**2,032**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	30,472	**30,472**	-	-	-	174,475	**174,475**
Contractual	-	-	-	74,662	**74,662**	-	-	-	97,887	**97,887**
Other	-	-	-	8,161	**8,161**	-	-	-	38,986	**38,986**
Fixed Charges	-	-	-	10,321	**10,321**	-	-	-	12,711	**12,711**
Professional & Other Fees	-	-	-	1,500	**1,500**	-	-	-	6,610	**6,610**
Equipment	-	-	-	16,254	**16,254**	-	-	-	5,395	**5,395**
Total expenditures	-	-	-	347,245	**347,245**	-	-	-	411,412	**411,412**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	250,508	**250,508**	-	-	-	600,491	**600,491**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	1,413,707	967,517	1,422,324	**8,803,548**	5,000,000	1,541,536	1,576,255	998,132	**9,115,923**
Prior Period Adjustment	-				**-**	-	-	-		
Fund Balance - June 30, 2017, as restated	5,000,000	1,413,707	967,517	1,422,324	**8,803,548**	5,000,000	1,541,536	1,576,255	998,132	**9,115,923**
Fund Balance - June 30, 2018	$ 5,000,000	$ 1,413,707	$ 967,517	$ 1,672,832	**$ 9,054,056**	$ 5,000,000	$ 1,541,536	$ 1,576,255	$ 1,598,623	**$ 9,716,414**

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YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	1,342,341	**1,342,341**	-	-	-	521,997	**521,997**
Unrealized gain (loss)	-	-	-	(772,056)	**(772,056)**	-	-	-	(298,282)	**(298,282)**
Endowment income	-	-	-	61,686	**61,686**	-	-	-	24,090	**24,090**
Total investment income (loss)	-	-	-	631,971	**631,971**	-	-	-	247,805	**247,805**
Total revenue	-	-	-	631,971	**631,971**	-	-	-	247,805	**247,805**
Expenditures										
Personal services	-	-	-	101,562	**101,562**	-	-	-	10,862	**10,862**
Fringe	-	-	-	35,299	**35,299**	-	-	-	3,055	**3,055**
Travel	-	-	-	858	**858**	-	-	-	10,302	**10,302**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	2,036	**2,036**	-	-	-	2,335	**2,335**
Contractual	-	-	-	78,935	**78,935**	-	-	-	25,246	**25,246**
Other	-	-	-	638	**638**	-	-	-	22	**22**
Fixed Charges	-	-	-	2,385	**2,385**	-	-	-	-	**-**
Professional & Other Fees	-	-	-	-	**-**	-	-	-	82,320	**82,320**
Equipment	-	-	-	-	**-**	-	-	-	-	**-**
Total expenditures	-	-	-	221,713	**221,713**	-	-	-	134,142	**134,142**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	410,258	**410,258**	-	-	-	113,663	**113,663**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	1,200,000	75,000	1,634,170	**7,909,170**	2,000,000	600,000	203,232	428,227	**3,231,459**
Prior Period Adjustment	-	-	-	318,485	**318,485**	-	-	-	81,046	**81,046**
Fund Balance - June 30, 2017, as restated	5,000,000	1,200,000	75,000	1,952,655	**8,227,655**	2,000,000	600,000	203,232	509,273	**3,312,505**
Fund Balance - June 30, 2018	$ 5,000,000	$ 1,200,000	$ 75,000	$ 2,362,913	**$ 8,637,913**	$ 2,000,000	$ 600,000	$ 203,232	$ 622,936	**$ 3,426,168**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	954,886	**954,886**	-	-	-	1,648,048	**1,648,048**
Unrealized gain (loss)	-	-	-	(548,645)	**(548,645)**	-	-	-	(948,764)	**(948,764)**
Endowment income	-	-	-	43,829	**43,829**	-	-	-	75,735	**75,735**
Total investment income (loss)	-	-	-	450,070	**450,070**	-	-	-	775,019	**775,019**
Total revenue	-	-	-	450,070	**450,070**	-	-	-	775,019	**775,019**
Expenditures										
Personal services	-	-	-	88,478	**88,478**	-	-	-	129,167	**129,167**
Fringe	-	-	-	26,138	**26,138**	-	-	-	47,320	**47,320**
Travel	-	-	-	84	**84**	-	-	-	417	**417**
Subrecipients	-	-	-	-	**-**	-	-	-	-	**-**
Supplies	-	-	-	17	**17**	-	-	-	40,287	**40,287**
Contractual	-	-	-	56,074	**56,074**	-	-	-	96,849	**96,849**
Other	-	-	-	3,865	**3,865**	-	-	-	-	**-**
Fixed Charges	-	-	-	286	**286**	-	-	-	18,194	**18,194**
Professional & Other Fees	-	-	-	2,162	**2,162**	-	-	-	250	**250**
Equipment	-	-	-	-	**-**	-	-	-	487	**487**
Total expenditures	-	-	-	177,104	**177,104**	-	-	-	332,971	**332,971**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	272,966	**272,966**	-	-	-	442,048	**442,048**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,600,000	1,080,000	9,769	1,246,541	**5,936,310**	5,000,000	3,451,075	(118,779)	1,216,637	**9,548,933**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	3,600,000	1,080,000	9,769	1,246,541	**5,936,310**	5,000,000	3,451,075	(118,779)	1,216,637	**9,548,933**
Fund Balance - June 30, 2018	$ 3,600,000	$ 1,080,000	$ 9,769	$ 1,519,507	**$ 6,209,276**	$ 5,000,000	$ 3,451,075	$ (118,779)	$ 1,658,685	**$ 9,990,981**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -		$ 2,900	**$ 2,900**	$ -	$ -	$ -	$ -	**$ -**
Total contribution revenue	-	-	-	2,900	**2,900**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	1,455,232	**1,455,232**	-	-	-	500,272	**500,272**
Unrealized gain (loss)	-	-	-	(837,153)	**(837,153)**	-	-	-	(288,233)	**(288,233)**
Endowment income	-	-	-	66,856	**66,856**	-	-	-	22,995	**22,995**
Total investment income (loss)	-	-	-	684,935	**684,935**	-	-	-	235,034	**235,034**
Total revenue	-	-	-	687,835	**687,835**	-	-	-	235,034	**235,034**
Expenditures										
Personal services	-	-	-	116,675	**116,675**	-	-	-	106,777	**106,777**
Fringe	-	-	-	42,352	**42,352**	-	-	-	39,046	**39,046**
Travel	-	-	-	-	**-**	-	-	-	7,731	**7,731**
Subrecipients	-	-	115,000	-	**115,000**	-	-	-	-	**-**
Supplies	-	-	-	12,330	**12,330**	-	-	-	62	**62**
Contractual	-	-	-	85,714	**85,714**	-	-	-	29,380	**29,380**
Other	-	-	-	9,634	**9,634**	-	-	-	-	**-**
Fixed Charges	-	-	-	-	**-**	-	-	-	-	**-**
Professional & Other Fees	-	-	-	-	**-**	-	-	-	3,277	**3,277**
Equipment	-	-	-	84	**84**	-	-	-	17,590	**17,590**
Total expenditures	-	-	115,000	266,789	**381,789**	-	-	-	203,863	**203,863**
Excess (deficiency) of revenues over (under) expenditures	-	-	(115,000)	421,046	**306,046**	-	-	-	31,171	**31,171**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	4,999,999	2,279,049	2,373,316	(811,658)	**8,840,706**	2,000,000	600,000	741,884	314,067	**3,655,951**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	4,999,999	2,279,049	2,373,316	(811,658)	**8,840,706**	2,000,000	600,000	741,884	314,067	**3,655,951**
Fund Balance - June 30, 2018	$ 4,999,999	$ 2,279,049	$ 2,258,316	$ (390,612)	**$ 9,146,752**	$ 2,000,000	$ 600,000	$ 741,884	$ 345,238	**$ 3,687,122**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
MEDICAL UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Total - Medical University of South Carolina				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**
Contribution Revenue					
Non-state matching funds	$ -	$ -	$ -	$ 354,993	**$ 354,993**
Total contribution revenue	-	-	-	354,993	**354,993**
Investment Income					
Realized gain (loss)	-	-	-	24,437,347	**24,437,347**
Unrealized gain (loss)	-	-	-	(13,575,293)	**(13,575,293)**
Endowment income	-	-	-	1,110,756	**1,110,756**
Total investment income (loss)	-	-	-	11,972,810	**11,972,810**
Total revenue	-	-	-	12,327,803	**12,327,803**
Expenditures					
Personal services	-	-	-	2,501,583	**2,501,583**
Fringe	-	-	-	858,957	**858,957**
Travel	-	-	-	81,387	**81,387**
Subrecipients	-	-	115,000	988	**115,988**
Supplies	-	-	-	468,443	**468,443**
Contractual	-	-	-	1,336,381	**1,336,381**
Other	-	-	-	302,953	**302,953**
Fixed Charges	-	-	-	64,139	**64,139**
Professional & Other Fees	-	-	-	311,741	**311,741**
Equipment	-	-	-	935,440	**935,440**
Total expenditures	-	-	115,000	6,862,012	**6,977,012**
Excess (deficiency) of revenues over (under) expenditures	-	-	(115,000)	5,465,791	**5,350,791**
Cumulative Program Fund Balances					
Beginning Fund Balances as Previously Reported	88,099,999	34,996,979	12,221,288	25,055,890	**160,374,156**
Prior Period Adjustment	-	-	-	506,560	**506,560**
Fund Balance - June 30, 2017, as restated	88,099,999	34,996,979	12,221,288	25,562,450	**160,880,716**
Fund Balance - June 30, 2018	$ 88,099,999	$ 34,996,979	$ 12,106,288	$ 31,028,241	**$ 166,231,507**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	71,159	**71,159**	-	-	-	90,491	**90,491**
Unrealized gain (loss)	-	-	-	193,585	**193,585**	-	-	-	243,151	**243,151**
Endowment income	-	-	-	32,267	**32,267**	-	-	-	25,739	**25,739**
Total investment income (loss)	-	-	-	297,011	**297,011**	-	-	-	359,381	**359,381**
Total revenue	-	-	-	297,011	**297,011**	-	-	-	359,381	**359,381**
Expenditures										
Personal services	-	-	-	100,666	**100,666**	-	-	-	55,487	**55,487**
Fringe	-	-	-	18,112	**18,112**	-	-	-	2,123	**2,123**
Travel	-	-	-	8,696	**8,696**	-	-	-	520	**520**
Supplies	-	-	-	64,579	**64,579**	-	-	-	755	**755**
Tuition assistance	-	-	-	3,312	**3,312**	-	-	-	9,787	**9,787**
Administrative fees	-	-	-	21,284	**21,284**	-	-	-	27,066	**27,066**
Other	-	-	-	36,023	**36,023**	-	-	-	127,552	**127,552**
Equipment	-	-	-	174,409	**174,409**	-	-	-	-	**-**
Total expenditures	-	-	-	427,081	**427,081**	-	-	-	223,290	**223,290**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(130,070)	**(130,070)**	-	-	-	136,091	**136,091**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	4,000,000	1,631,274	-	1,145,625	**6,776,899**	5,000,000	2,102,769	-	324,616	**7,427,385**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	4,000,000	1,631,274	-	1,145,625	**6,776,899**	5,000,000	2,102,769	-	324,616	**7,427,385**
Fund Balance - June 30, 2018	$ 4,000,000	$ 1,631,274	$ -	$ 1,015,555	**$ 6,646,829**	$ 5,000,000	$ 2,102,769	$ -	$ 460,707	**$ 7,563,476**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Polymer Nanocomposites					Hydrogen Fuel Cell Economy (Innovation)				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**
Contribution Revenue										
Non-state matching funds	$ -	$ 500	$ 8,000	$ -	**$ 8,500**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	25,000	**25,000**	-	-	-	-	**-**
Total contribution revenue	-	500	8,000	25,000	**33,500**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	72,436	**72,436**	-	-	-	73,391	**73,391**
Unrealized gain (loss)	-	-	-	177,091	**177,091**	-	-	-	230,187	**230,187**
Endowment income	-	-	-	17,922	**17,922**	-	-	-	50,140	**50,140**
Total investment income (loss)	-	-	-	267,449	**267,449**	-	-	-	353,718	**353,718**
Total revenue	-	500	8,000	292,449	**300,949**	-	-	-	353,718	**353,718**
Expenditures										
Personal services	-	-		143,321	**143,321**	-	-	-	106,732	**106,732**
Fringe	-	-		10,454	**10,454**	-	-	-	14,766	**14,766**
Travel	-	-	4,452	15,148	**19,600**	-	-	-	2,915	**2,915**
Supplies	-	-	1,388	21,902	**23,290**	-	-	-	1,070	**1,070**
Tuition assistance	-	-	3,000	13,530	**16,530**	-	-	-	-	**-**
Administrative fees	-	-	-	21,666	**21,666**	-	-	-	21,951	**21,951**
Other	-	-	-	38,556	**38,556**	-	-	-	32,711	**32,711**
Equipment	-	-	1,617	14,818	**16,435**	-	-	-	-	**-**
Total expenditures	-	-	10,457	279,395	**289,852**	-	-	-	180,145	**180,145**
Excess (deficiency) of revenues over (under) expenditures	-	500	(2,457)	13,054	**11,097**	-	-	-	173,573	**173,573**
Transfers	-	-	-	10,329	**10,329**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,500,000	1,442,412	14,782	377,979	**5,335,173**	5,000,000	1,500,000	-	1,718,549	**8,218,549**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	3,500,000	1,442,412	14,782	377,979	**5,335,173**	5,000,000	1,500,000	-	1,718,549	**8,218,549**
Fund Balance - June 30, 2018	$ 3,500,000	$ 1,442,912	$ 12,325	$ 401,362	**$ 5,356,599**	$ 5,000,000	$ 1,500,000	$ -	$ 1,892,122	**$ 8,392,122**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	57,693	**57,693**	-	-	-	66,977	**66,977**
Unrealized gain (loss)	-	-	-	113,557	**113,557**	-	-	-	155,505	**155,505**
Endowment income	-	-	-	17,482	**17,482**	-	-	-	16,619	**16,619**
Total investment income (loss)	-	-	-	188,732	**188,732**	-	-	-	239,101	**239,101**
Total revenue	-	-	-	188,732	**188,732**	-	-	-	239,101	**239,101**
Expenditures										
Personal services	-	-	-	43,870	**43,870**	-	-	-	141,819	**141,819**
Fringe	-	-	-	11,028	**11,028**	-	-	-	10,987	**10,987**
Travel	-	-	-	18,449	**18,449**	-	-	-	18,237	**18,237**
Supplies	-	-	-	5,276	**5,276**	-	-	-	67,366	**67,366**
Tuition assistance	-	-	-	20,157	**20,157**	-	-	-	9,939	**9,939**
Administrative fees	-	-	-	17,256	**17,256**	-	-	-	20,033	**20,033**
Other	-	-	-	3,258	**3,258**	-	-	-	18,018	**18,018**
Equipment	-	-	-	-	**-**	-	-	-	62	**62**
Total expenditures	-	-	-	119,294	**119,294**	-	-	-	286,461	**286,461**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	69,438	**69,438**	-	-	-	(47,360)	**(47,360)**
Transfers	-	-	-	-	**-**	-	-	-	(10,329)	**(10,329)**
Cumulative Program Fund Balances Beginning Fund Balances as Previously Reported	2,000,000	1,410,000	87	320,423	**3,730,510**	3,000,000	1,200,000	-	529,617	**4,729,617**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	2,000,000	1,410,000	87	320,423	**3,730,510**	3,000,000	1,200,000	-	529,617	**4,729,617**
Fund Balance - June 30, 2018	$ 2,000,000	$ 1,410,000	$ 87	$ 389,861	**$ 3,799,948**	$ 3,000,000	$ 1,200,000	$ -	$ 471,928	**$ 4,671,928**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	5,396	**5,396**	-	-	-	130,996	**130,996**
Unrealized gain (loss)	-	-	-	136,746	**136,746**	-	-	-	273,859	**273,859**
Endowment income	-	-	-	10,519	**10,519**	-	-	-	33,838	**33,838**
Total investment income (loss)	-	-	-	152,661	**152,661**	-	-	-	438,693	**438,693**
Total revenue	-	-	-	152,661	**152,661**	-	-	-	438,693	**438,693**
Expenditures										
Personal services	-	-	-	43,177	**43,177**	-	-	-	270,273	**270,273**
Fringe	-	-	-	6,496	**6,496**	-	-	-	47,036	**47,036**
Travel	-	-	-	7,012	**7,012**	-	-	-	8,422	**8,422**
Supplies	-	-	-	18,171	**18,171**	-	-	-	3,509	**3,509**
Tuition assistance	-	-	-	-	**-**	-	-	-	1,531	**1,531**
Administrative fees	-	-	-	1,614	**1,614**	-	-	-	39,181	**39,181**
Other	-	-	-	22,923	**22,923**	-	-	-	79,700	**79,700**
Equipment	-	-	-	33,066	**33,066**	-	-	-	-	**-**
Total expenditures	-	-	-	132,459	**132,459**	-	-	-	449,652	**449,652**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	20,202	**20,202**	-	-	-	(10,959)	**(10,959)**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	900,000	-	378,307	**4,278,307**	5,000,000	2,502,066	-	997,641	**8,499,707**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	60,785	**60,785**
Fund Balance - June 30, 2017, as restated	3,000,000	900,000	-	378,307	**4,278,307**	5,000,000	2,502,066	-	1,058,426	**8,560,492**
Fund Balance - June 30, 2018	$ 3,000,000	$ 900,000	$ -	$ 398,509	**$ 4,298,509**	$ 5,000,000	$ 2,502,066	$ -	$ 1,047,467	**$ 8,549,533**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Rehabilitation and Reconstruction Science (Center for Effectiveness Research in Orthopaedics)					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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-			-	-	7,728	-	**7,728**
Total contribution revenue	-	-	-	-	**-**	-	-	7,728	-	**7,728**
Investment Income										
Realized gain (loss)	-	-	-	78,399	**78,399**	-	-	-	120,596	**120,596**
Unrealized gain (loss)	-	-	-	233,984	**233,984**	-	-	-	265,975	**265,975**
Endowment income	-	-	11,475	20,967	**32,442**	-	-	-	38,675	**38,675**
Total investment income (loss)	-	-	11,475	333,350	**344,825**	-	-	-	425,246	**425,246**
Total revenue	-	-	11,475	333,350	**344,825**	-	-	7,728	425,246	**432,974**
Expenditures										
Personal services	-	-	-	318,764	**318,764**	-	-	3,719	204,718	**208,437**
Fringe	-	-	-	53,405	**53,405**	-	-		16,105	**16,105**
Travel	-	-	-	37,915	**37,915**	-	-	705	10,418	**11,123**
Supplies	-	-	-	11,365	**11,365**	-	-	9,896	8,423	**18,319**
Tuition assistance	-	-	-	28,145	**28,145**	-	-	-	24,021	**24,021**
Administrative fees	-	-	-	23,449	**23,449**	-	-	-	36,070	**36,070**
Other	-	-	-	366,276	**366,276**	-	-	41,421	3,578	**44,999**
Equipment	-	-	-	3,293	**3,293**	-	-	-	75,302	**75,302**
Total expenditures	-	-	-	842,612	**842,612**	-	-	55,741	378,635	**434,376**
Excess (deficiency) of revenues over (under) expenditures	-	-	11,475	(509,262)	**(497,787)**	-	-	(48,013)	46,611	**(1,402)**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	1,500,000	1,525,726	959,971	**8,985,697**	5,000,000	2,515,000	68,845	1,296,695	**8,880,540**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	5,000,000	1,500,000	1,525,726	959,971	**8,985,697**	5,000,000	2,515,000	68,845	1,296,695	**8,880,540**
Fund Balance - June 30, 2018	$ 5,000,000	$ 1,500,000	$ 1,537,201	$ 450,709	**$ 8,487,910**	$ 5,000,000	$ 2,515,000	$ 20,832	$ 1,343,306	**$ 8,879,138**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	104,654	**104,654**	-	-	-	92,505	**92,505**
Unrealized gain (loss)	-	-	-	253,888	**253,888**	-	-	-	244,677	**244,677**
Endowment income	-	-	-	35,963	**35,963**	-	-	-	29,900	**29,900**
Total investment income (loss)	-	-	-	394,505	**394,505**	-	-	-	367,082	**367,082**
Total revenue	-	-	-	394,505	**394,505**	-	-	-	367,082	**367,082**
Expenditures										
Personal services	-	-	-	183,670	**183,670**	-	-	-	84,934	**84,934**
Fringe	-	-	-	30,821	**30,821**	-	-	-	11,782	**11,782**
Travel	-	-	-	17,822	**17,822**	-	-	-	7,963	**7,963**
Supplies	-	-	-	8,704	**8,704**	-	-	2,395	12,719	**15,114**
Tuition assistance	-	-	-	15,673	**15,673**	-	-	-	-	**-**
Administrative fees	-	-	-	31,302	**31,302**	-	-	-	27,668	**27,668**
Other	-	-	-	138,589	**138,589**	-	-	800	85,778	**86,578**
Equipment	-	-	-	7,428	**7,428**	-	-	-	6,727	**6,727**
Total expenditures	-	-	-	434,009	**434,009**	-	-	3,195	237,571	**240,766**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(39,504)	**(39,504)**	-	-	(3,195)	129,511	**126,316**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	2,000,000	-	1,203,511	**8,203,511**	5,000,000	2,000,000	29,955	750,005	**7,779,960**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	5,000,000	2,000,000	-	1,203,511	**8,203,511**	5,000,000	2,000,000	29,955	750,005	**7,779,960**
Fund Balance - June 30, 2018	$ 5,000,000	$ 2,000,000	$ -	$ 1,164,007	**$ 8,164,007**	$ 5,000,000	$ 2,000,000	$ 26,760	$ 879,516	**$ 7,906,276**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Nanoenvironmental 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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	12,328	**12,328**	-	-	-	-	**-**
Total contribution revenue	-	-	-	12,328	**12,328**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	56,575	**56,575**	-	-	-	47,561	**47,561**
Unrealized gain (loss)	-	-	-	147,619	**147,619**	-	-	-	140,785	**140,785**
Endowment income	-	-	-	16,259	**16,259**	-	-	-	16,789	**16,789**
Total investment income (loss)	-	-	-	220,453	**220,453**	-	-	-	205,135	**205,135**
Total revenue	-	-	-	232,781	**232,781**	-	-	-	205,135	**205,135**
Expenditures										
Personal services	-	-	-	177,722	**177,722**	-	-	-	222,432	**222,432**
Fringe	-	-	-	19,426	**19,426**	-	-	-	20,502	**20,502**
Travel	-	-	-	26,690	**26,690**	-	-	-	8,599	**8,599**
Supplies	-	-	-	27,791	**27,791**	-	-	-	-	**-**
Tuition assistance	-	-	-	8,380	**8,380**	-	-	-	-	**-**
Administrative fees	-	-	-	16,922	**16,922**	-	-	-	14,225	**14,225**
Other	-	-	-	39,994	**39,994**	-	-	-	-	**-**
Equipment	-	-	-	-	**-**	-	-	-	-	**-**
Total expenditures	-	-	-	316,925	**316,925**	-	-	-	265,758	**265,758**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(84,144)	**(84,144)**	-	-	-	(60,623)	**(60,623)**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	1,000,000	-	545,868	**4,545,868**	3,000,000	905,000	-	594,450	**4,499,450**
Prior Period Adjustment										
Fund Balance - June 30, 2017, as restated	3,000,000	1,000,000	-	545,868	**4,545,868**	3,000,000	905,000	-	594,450	**4,499,450**
Fund Balance - June 30, 2018	$ 3,000,000	$ 1,000,000	$ -	$ 461,724	**$ 4,461,724**	$ 3,000,000	$ 905,000	$ -	$ 533,827	**$ 4,438,827**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	General Atomics Center for the Development of Translational Nuclear Technology					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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ 3,120	$ -	$ -	**$ 3,120**
Other Contributions/Revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	-	-	-	-	**-**	-	3,120	-	-	**3,120**
Investment Income										
Realized gain (loss)	-	-	-	65,643	**65,643**	-	-	-	23,993	**23,993**
Unrealized gain (loss)	-	-	-	154,494	**154,494**	-	-	-	122,842	**122,842**
Endowment income	-	-	-	27,632	**27,632**	-	-	-	16,046	**16,046**
Total investment income (loss)	-	-	-	247,769	**247,769**	-	-	-	162,881	**162,881**
Total revenue	-	-	-	247,769	**247,769**	-	3,120	-	162,881	**166,001**
Expenditures										
Personal services	-	-	-	30,770	**30,770**	-	-	-	20,000	**20,000**
Fringe	-	-	-	741	**741**	-	-	-	362	**362**
Travel	-	-	-	8,050	**8,050**	-	-	-	-	**-**
Supplies	-	-	-	11,619	**11,619**	-	-	-	1,325	**1,325**
Tuition assistance	-	-	-	-	**-**	-	-	-	-	**-**
Administrative fees	-	-	-	19,634	**19,634**	-	-	-	7,180	**7,180**
Other	-	-	-	1,524	**1,524**	-		-	46,444	**46,444**
Equipment	-	-	-	-	**-**	-	-	-	-	**-**
Total expenditures	-	-	-	72,338	**72,338**	-	-	-	75,311	**75,311**
Excess (deficiency) of revenues over (under) expenditures	-	-	-	175,431	**175,431**	-	3,120	-	87,570	**90,690**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances Beginning Fund Balances as Previously Reported	3,000,000	1,410,000	-	637,265	**5,047,265**	3,000,000	458,040	-	512,067	**3,970,107**
Prior Period Adjustment	-		-		**-**	-		-		
Fund Balance - June 30, 2017, as restated	3,000,000	1,410,000	-	637,265	**5,047,265**	3,000,000	458,040	-	512,067	**3,970,107**
Fund Balance - June 30, 2018	$ 3,000,000	$ 1,410,000	$ -	$ 812,696	**$ 5,222,696**	$ 3,000,000	$ 461,160	$ -	$ 599,637	**$ 4,060,797**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	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										
Non-state matching funds	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	**$ -**
Other Contributions/Revenue	-	-	-	-	**-**	-	-	-	-	**-**
Total contribution revenue	-	-	-	-	**-**	-	-	-	-	**-**
Investment Income										
Realized gain (loss)	-	-	-	77,350	**77,350**	-	-	-	179,365	**179,365**
Unrealized gain (loss)	-	-	-	128,461	**128,461**	-	-	-	205,803	**205,803**
Endowment income	-	-	-	33,195	**33,195**	-	-	-	44,150	**44,150**
Total investment income (loss)	-	-	-	239,006	**239,006**	-	-	-	429,318	**429,318**
Total revenue	-	-	-	239,006	**239,006**	-	-	-	429,318	**429,318**
Expenditures										
Personal services	-	-	-	61,596	**61,596**	-	-	-	68,000	**68,000**
Fringe	-	-	-	14,822	**14,822**	-	-	-	10,038	**10,038**
Travel	-	-	-	27,495	**27,495**	-	-	-	1,526	**1,526**
Supplies	-	-	-	8,976	**8,976**	-	-	-	5,298	**5,298**
Tuition assistance	-	-	-	-	**-**	-	-	-	9,289	**9,289**
Administrative fees	-	-	-	23,135	**23,135**	-	-	-	53,648	**53,648**
Other	-	-	-	13,189	**13,189**	-	-	-	5	**5**
Equipment	-	-	-	-	**-**	-	-	-	98,606	**98,606**
Total expenditures	-	-	-	149,213	**149,213**	-	-	-	246,410	246,410
Excess (deficiency) of revenues over (under) expenditures	-	-	-	89,793	**89,793**	-	-	-	182,908	**182,908**
Transfers	-	-	-	-	**-**	-	-	-	-	**-**
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	1,582,098	-	1,243,645	**4,825,743**	2,000,000	3,750,000	-	510,169	**6,260,169**
Prior Period Adjustment	-	-	-	-	**-**	-	-	-	-	**-**
Fund Balance - June 30, 2017, as restated	2,000,000	1,582,098	-	1,243,645	**4,825,743**	2,000,000	3,750,000	-	510,169	**6,260,169**
Fund Balance - June 30, 2018	$ 2,000,000	$ 1,582,098	$ -	$ 1,333,438	**$ 4,915,536**	$ 2,000,000	$ 3,750,000	$ -	$ 693,077	**$ 6,443,077**

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2018

	Total - University of South Carolina				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	**Total**
Contribution Revenue					
Non-state matching funds	$ -	$ 3,620	$ 8,000	$ -	**$ 11,620**
Other Contributions/Revenue	-	-	7,728	37,328	**45,056**
Total contribution revenue	-	3,620	15,728	37,328	**56,676**
Investment Income					
Realized gain (loss)	-	-	-	1,415,180	**1,415,180**
Unrealized gain (loss)	-	-	-	3,422,209	**3,422,209**
Endowment income	-	-	11,475	484,102	**495,577**
Total investment income (loss)	-	-	11,475	5,321,491	**5,332,966**
Total revenue	-	3,620	27,203	5,358,819	**5,389,642**
Expenditures					
Personal services	-	-	3,719	2,277,951	**2,281,670**
Fringe	-	-	-	299,006	**299,006**
Travel	-	-	5,157	225,877	**231,034**
Supplies	-	-	13,679	278,848	**292,527**
Tuition assistance	-	-	3,000	143,764	**146,764**
Administrative fees	-	-	-	423,284	**423,284**
Other	-	-	42,221	1,054,118	**1,096,339**
Equipment	-	-	1,617	413,711	**415,328**
Total expenditures	-	-	69,393	**5,116,559**	5,185,952
Excess (deficiency) of revenues over (under) expenditures	-	3,620	(42,190)	242,260	**203,690**
Transfers	-	-	-	-	**-**
Cumulative Program Fund Balances					
Beginning Fund Balances as Previously Reported	66,500,000	29,808,659	1,639,395	14,046,403	**111,994,457**
Prior Period Adjustment	-	-	-	60,785	**60,785**
Fund Balance - June 30, 2017, as restated	66,500,000	29,808,659	1,639,395	14,107,188	**112,055,242**
Fund Balance - June 30, 2018	$ 66,500,000	$ 29,812,279	$ 1,597,205	$ 14,349,448	**$ 112,258,932**