



November 27, 2019

The Honorable Henry McMaster, Governor of the State of S.C.
The Honorable Harry S. Peeler, President, and Members, S.C. Senate
The Honorable James H. "Jay" Lucas, Speaker, and Members, S.C. House of Representatives

Dear Governor McMaster and Members of the S.C. General Assembly:

On behalf of the S.C. Centers of Economic Excellence Review Board, I am pleased to provide you with the *SmartState® Program 2018-2019 Annual Report* and the *2018-2019 SmartState® Program Audit*. We are proud to share with you the program's accomplishments and to report again this year an unqualified audit with no material findings. These reports highlight the tremendous success of SmartState.

To date, the SmartState® Review Board has approved 51 research centers in areas such as biomedicine, pharmaceutical research, automotive engineering and transportation, energy, nanotechnology, information science, and advanced materials. Across these centers, 85 SmartState endowed chair positions have been approved, and 74 appointments have been made and announced. As envisioned by the General Assembly in 2002, SmartState® is delivering significant returns on the state's investment on many fronts such as sponsored research, corporate partnerships, company relocations and startups, increased jobs in our state, and opportunities for young people at our universities, in industry, and as entrepreneurs. According to a recent study by the University of S.C.'s Moore School of Business, SmartState® is responsible for helping to create and support approximately 14,927 jobs in our state, which are associated with nearly \$2.9 billion in total economic activity and \$852 million in labor income for South Carolinians that would not exist otherwise. Of the total 14,927 jobs, 5,603 (37%) are high-paying knowledge economy jobs created directly through the program with an average salary of \$74,460, which is higher than the average annual salary among all jobs in South Carolina.

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

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

Sincerely,

Charles Kerekes

Charles Kerekes
Vice Chair, SmartState Review Board

cc: The Honorable Richard Eckstrom, S.C. Comptroller General
The Honorable Curtis Loftis, State Treasurer of S.C.
Ms. Marcia Adams, Executive Director, Department of Administration
Members, SmartState Review Board
Dr. Rusty Monhollon, President and Executive Director, S. C. Commission on Higher Education

South Carolina

PIONEERS



SC CENTERS OF ECONOMIC EXCELLENCE
2018-2019 ANNUAL REPORT





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OUR MISSION

The South Carolina SmartState® Program serves the public's 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 that 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.



Welcome

FROM THE SMARTSTATE REVIEW BOARD

The SmartState® Review Board consists of 11 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.

To My Fellow South Carolinians,

The SmartState® Review Board is proud to share with you our 2018-19 annual report, South Carolina Pioneers. Inside, you'll find features highlighting the remarkable accomplishments from many of the SmartState Program leaders. These pioneers are catapulting our state forward in today's ever-changing global economy, placing us on a national stage for recognition in the areas of advanced medical research, technology, automotive manufacturing, energy, and so much more.

Recently, I came across a quote of unknown origin, "Leaders instill in their people a hope for success and a belief in themselves. Positive leaders empower people to accomplish their goals." This seemed fitting to include in this year's report as we reflect on those who have made a difference in our state and pioneered our Program. A true humanitarian, Mrs. Anita Zucker and her family's philanthropy have stemmed many of the SmartState achievements. The Zuckers have been an integral part of organizations such as the Foundation for Research & Development at UofSC and MUSC, the McNair Center, the Zucker Institute for Applied Neuroscience, among countless others. Without the altruistic support of the Zuckers, many of our programs would not be thriving as they are today. I am proud that we recognize Mrs. Zucker's contributions in this year's report.

In 2018, we also said a farewell to one of our University leaders, Dr. Harris Pastides. While his retirement from the University of South Carolina Presidency has been bittersweet for many of us, we want to wish him well as he embarks on his next chapter. We have an incredible amount of gratitude for Dr. Pastides and all of his profound leadership and support of our Program over the last two decades.

I want to give a special thanks to all those who support us, and acknowledge the vision of the South Carolina's General Assembly members in creating this esteemed SmartState Program. It is through our Program's leadership, financial generosity, collaborative business partnerships, and tireless research efforts that this state-of-the-art establishment is able to fulfill its promise to our state—a promise of an improved knowledge economy, a robust workforce with higher paying jobs, and a distinguished reputation for our state. We look forward to seeing what South Carolina's pioneers do next!



Karoly "Charles" Kerekes, Vice Chair
SmartState Review Board
Appointed by the Governor

MEET

the Board



Karoly (Charles) Kerekes
*Appointed by
the Governor*



C.W. (Chuck) Garnett
*Appointed by
the Governor*



Lisa Main
*Appointed by the
Speaker of the House*



Robert W. Pearce, Jr.
*Appointed by the
Speaker of the House*



Melvin C. Williams
*Appointed by the President Pro
Tempore of the Senate*



Roberta Bankhead Wood
*Appointed by the Chairman,
House Ways & Means Committee*



ABOUT OUR PROGRAM

Composed of world-class researchers, scientists, and experts, the Endowed Chairs SmartState® Centers of Economic Excellence Program is pioneering South Carolina's fortunes. Through research and education, partnerships and investment from businesses, and the attraction of federal research dollars, SmartState® has pivoted the state's knowledge economy to one of international competitiveness. We thank these Endowed Chairs for inviting us into their labs and research facilities to learn more about their amazing discoveries and experiences.

This report is just a small glimpse into some of the incredible things that are happening inside the Centers of Economic Excellence. SmartState supporter, Anita Zucker said it best when she described these chairs as "big-thinkers" who are creating game-changers in the way of research, healthcare, technology, energy, and manufacturing. Inside this report, you'll learn more about Dr. Robert Adams, the father of telemedicine, and his latest endeavors with his SmartState start-up company, Zeriscope, in which he and his fellow researchers are working to advance telemedicine technologies to new areas of healthcare.

We were also invited into the state-of-the-art labs of Dr. Carol Feghali-Bostwick and Dr. Betty Tsao at MUSC where they shared their groundbreaking research that is happening in

lupus and scleroderma, all while pioneering the way for female scientists. Their joint efforts are one of many among the Centers of Economic Excellence that prove collaboration is the root of success for this program.

It's not surprising that our state's growth has attracted more than just researchers and investors. We learned from Dr. Simon Hudson at the University of South Carolina's Center for Tourism and Economic Development that our state's tourism industry is now worth nearly \$23 billion and is employing 250,000 people or roughly 10 percent of the state's total workforce.

Tourism isn't the only thing that's making a big impact in South Carolina. Included in the Numbers Report found on page 14, the knowledge economy fueled by the SmartState® Program is a fundamental driver of regional growth. It is a key ingredient to a healthy South Carolina economy. South Carolina's sizable premium in wages is directly and indirectly related to the SmartState® Program.

These numbers and the stories inside this report are among many other noteworthy highlights of the SmartState® Program. We invite you to turn the pages and read more about the remarkable people and happenings that made the 2018-19 year so impactful within the Program.



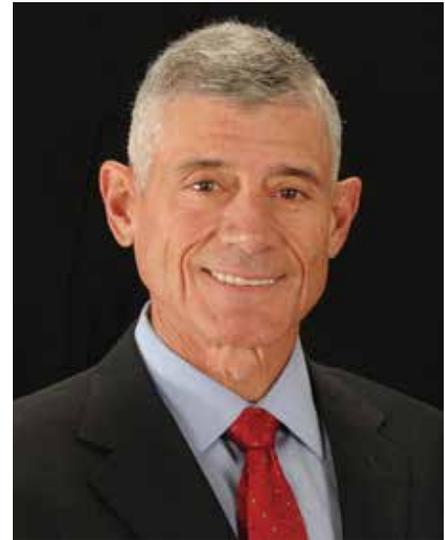
JAMES P. CLEMENTS, Ph.D.
President
Clemson University

“The SmartState® Program truly represents the power of public/private partnerships to make a positive difference for the State of South Carolina. It also continues to have a tremendous impact on Clemson University and our ability to recruit and retain top faculty and students, which ultimately makes the university and state more attractive to industry partners”



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

“The South Carolina SmartState® Program is a stellar example of what’s needed to transform and grow our state through the establishment of a knowledge-based economy. This aligns with MUSC’s vision, to lead health innovation for the lives we touch, which embraces collaboration, drives innovation, and ultimately is fueled by the ability to recruit and retain world-class investigators.”



ROBERT L. CASLEN, JR.
President
University of South Carolina

“The University of South Carolina is proud of its continued work with the SmartState® Program and the innovative opportunities it provides our students. UofSC students develop their skillsets in our 26 SmartState Centers of Economic Excellence, such as the Cancer Drug Discovery and Innovation + Commercialization Centers. Our partnership with SmartState® has revitalized our state’s economic innovation and workforce development, and we are excited about the future promise of our students’ professional readiness.”

ANITA ZUCKER

*a pioneer; an innovator;
a trailblazer*

Mrs. Zucker is a modest woman who did not grow up with much, but as she and her late husband, Jerry Zucker, earned their degrees and built their first business together, R.M. Engineered Products, they began to build many lifetimes of wealth.

"Jerry was a brilliant man," reminisces Anita. "He worked so hard to grow our businesses. He produced hundreds of patents. And as soon as we were able to do so, we decided we wanted to give back."

The Zuckers have given over \$10 million to the SmartState® Programs. When asked what motivates her to give, Anita said, "As a former elementary school teacher, education has always been near and dear to my heart. Later, I found a strong desire to invest in healthcare to help find a cure for brain tumors, which is what took Jerry's life. The SmartState® Program is unique in its ability to bring together higher education, healthcare research, and technology advancements all under one roof of the Endowed Chair program. Its creation has been a gift to our state's wellbeing."

Anita says when her husband passed it was as if a part of his soul jumped into hers. "Making the world a better place through investment and leadership is who Jerry was. Today, I cannot imagine my life without philanthropy. It's in our wheelhouse. It's who we are."

Mrs. Zucker says there is more to philanthropy than just giving money. It's about investing in the company, the people, and seeing the entire project through to fruition. The Zuckers set themselves apart by engaging in the research, taking ownership in the companies, and fostering each project's success.

"In 2008, Jerry and I were a part of the Foundation for Research and Development at UofSC. It was here that we were first introduced to the SmartState® Program," says Anita. "We became close friends with Brian Benicewicz, who is the Endowed Chair in Polymer Nanocomposites. With their common interest in polymers, Brian and Jerry immediately connected on many levels. To this day, Brian is a close friend of ours. We invested in a new company, PBI Performance Products, which Brian is also a part of. PBI creates advanced polymers for applications in demanding conditions.

"We have so many personal connections to so many of the Endowed Chairs in the SmartState® Program," smiles Anita. "I consider Dr. Robert Adams, who we have collaborated with, to be the father of telemedicine. We helped found the McNAIR Center and have worked closely with Dr. Michel van Tooren in his efforts with 3-D printing and aerospace technology. We've been involved with renewable energy and Clemson's Smart Grid. With all of our connections, it makes me so happy to see each of these successes to make our world a better place in which to live."

The Zuckers' latest project is the establishment of the Zucker Institute for Applied Neuroscience (ZIAN) at the Medical University of South Carolina (MUSC). Anita is working with Sunil Patel, M.D., and Jonathan Edwards, M.D., in Neurosurgery and Neuroscience to inspire clinicians to solve unmet needs for patients. ZIAN supplies talent, tools and capital necessary to accelerate innovation and commercialization of class-leading medical device technology like 3-D printing. Their latest device, BlinkTBI, is in the final phases of FDA-approval. BlinkTBI is a machine created to detect concussions as they happen on the field by detecting blink reflexes. ZIAN is supporting devices such as these that are resulting in a portfolio of products that clinicians want to use and the industry wants to have.

When asked what she admires most about SmartState® Program, Anita paused and smiled. She said, "It's about keeping South Carolina on top in the international knowledge arena. This program has done so much in the way of advancing our state's excellence. Through the SmartState® Program, we've crafted game-changers in healthcare, education, and technology. I've tried to do my best to jump into these incredible programs with both feet. I want to support higher education and be a driving force in research innovation. Every day I try to lead my life to be inquisitive and knowledgeable about everything our family is supporting, because I just know that's what Jerry would have done. And it's my promise to him in carrying on his legacy."



“*‘Tikkun Olam’ is an old Hebrew saying that Anita Zucker and her family live by. It means, ‘repair of the world.’*”

Anita Zucker, CEO, InterTech Group, Inc.

A FAREWELL TO DR. HARRIS PASTIDES

Leaving a legacy

Seeds that were planted by Dr. Pastides over the past two decades of his tenure at the University of South Carolina (UofSC) have taken deep root in our state. Over time, these roots have intertwined to form an intricate educational and research system, supporting a strong foundation across much of the state's knowledge economy. For more than 20 years, the SmartState® Centers of Economic Excellence enjoyed the privilege of having Dr. Pastides as a leader among the programs and the University of South Carolina. It is thanks to his exceptional leadership, valor, and commitment to education that South Carolina is left with a competitive and collaborative spirit that will live on well beyond his tenure.

"I am proud to say that the SmartState® Centers of Economic Excellence constitute the most innovative and progressive programs promulgated by our legislature over these two decades," praises Dr. Pastides. "As I remember, the program started with an idea floated by Samuel Tenenbaum, also one of the early board members. He had heard of some similar programs around the United States, and abroad, but suggested that we design a better program by matching funding from our three research universities with state funding in support of research proposals, which would be reviewed by outside technical and business experts.

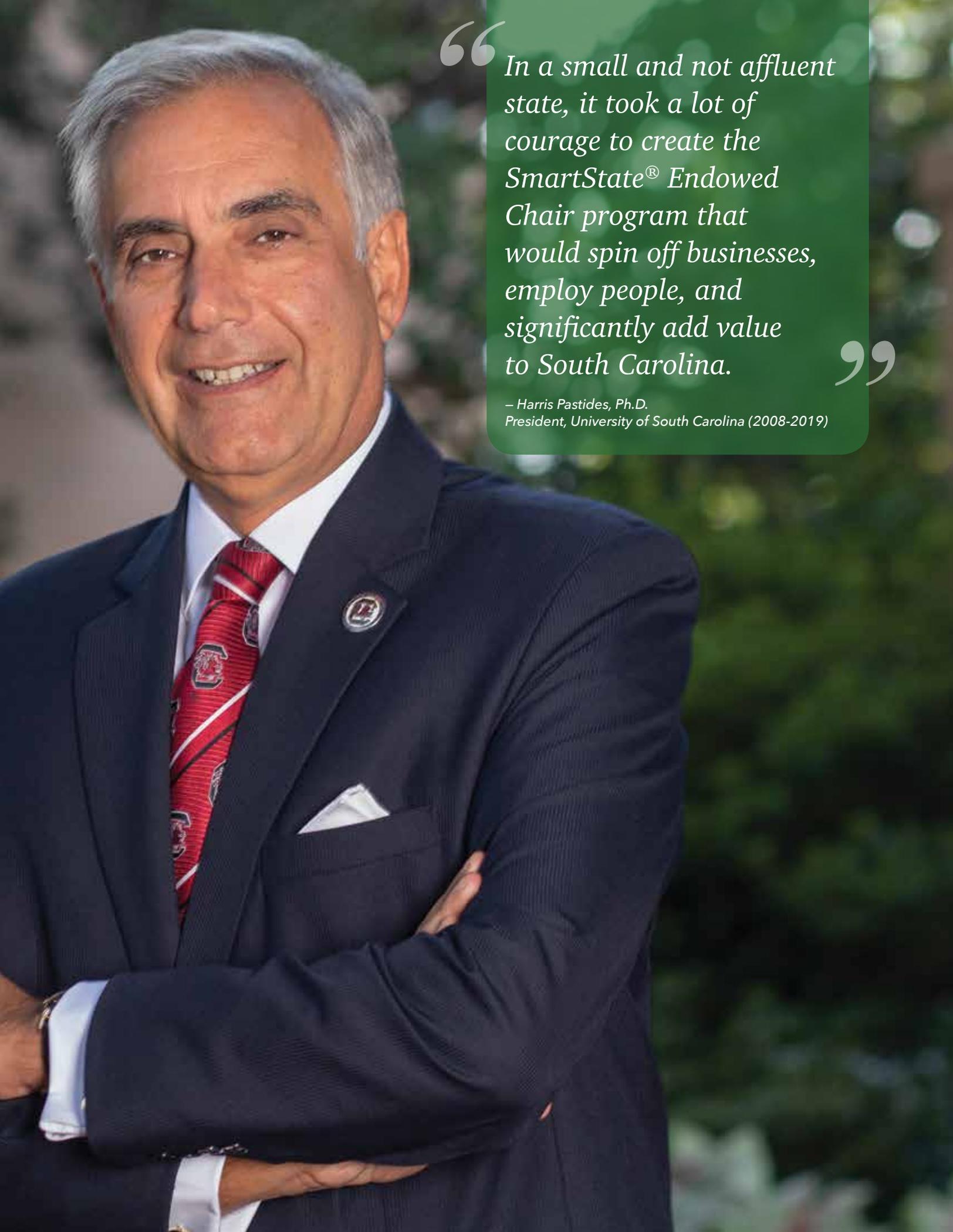
"I served as Vice President for Research at the University of South Carolina during those early years of this program. I remember how hard I worked to develop competitive proposals and to seek matching funds from innovative businesses and individuals around the state. In later years, the SC Department

of Commerce was vitally involved in guiding the program. Several dozen Centers were established at UofSC, the Medical University of South Carolina, and Clemson over the years and many continue to spin off valuable economic activity for our state."

Dr. Pastides agrees, the investment made by the taxpayers of South Carolina has been amplified and rewarded many times over by way of the SmartState® program. The program's success will reap benefits for years to come.

"While you can't always return the good deeds of prior leaderships once they leave an organization, you can pay it forward by behaving similarly to the next generations," says Charles Kerekes, Vice Chair of the SmartState® Review Board. "I have no doubt that Dr. Pastides has shown us the way to a prosperous and healthy University and state. As we embark on our future, we will continue to do so in an effort to uphold his legacy."

Dr. Pastides announced his retirement as president from UofSC in October of 2018. In his departure, Dr. Pastides had this to say in regard to the SmartState® Program: "I wish to thank all who have served on the SmartState® Board, as well as the hundreds of Endowed Chairs, other faculty, technical staff, and students who worked so hard to make this valuable program a success. I look forward to the next generation of the SmartState® Program, which would match current and future needs of our state with our outstanding research universities' faculty expertise."



“In a small and not affluent state, it took a lot of courage to create the SmartState® Endowed Chair program that would spin off businesses, employ people, and significantly add value to South Carolina.”

*– Harris Pastides, Ph.D.
President, University of South Carolina (2008-2019)*

CLEMSON'S STRATEGIC PARTNERSHIP WITH GREENVILLE TECHNICAL COLLEGE REDEFINES FUTURE SMARTSTATE COLLABORATIONS

Historically, Clemson University and Greenville Technical College have had a strong collaborative relationship. Over the last four years, however, that relationship has solidified even more with the recent connection between Clemson's International Center for Automotive Research (CU-ICAR) and Greenville Technical College's Center for Manufacturing Innovation (CMI).

CMI at Greenville Technical College provides students with a simulated manufacturing environment that gives students the tools they need to succeed in advanced manufacturing careers. With a location adjacent to CU-ICAR, CMI brings manufacturing students from Greenville Technical College and engineering students from Clemson together to solve real world problems. The goal of CMI is to increase the number of skilled workers for manufacturing in South Carolina, and in so doing, to bridge the gap between the education of the engineer and the technician.

"What we learned from local businesses and employers was that engineers and technicians were educated separately but expected to collaborate once they enter the workplace," explains Keith Miller, Ph.D., President of Greenville Technical College. "We felt that integration should happen sooner. Why not give engineering students exposure to the manufacturing technicians, and vice versa, while these individuals are still in school? Then, when they enter the

workforce, they are accustomed to leaning on each other as they solve problems together, with better product development as a result."

Jermaine Whirl, Ed.D., is Greenville Technical College's Vice President for Learning and Workforce Development. "Part of my job is fulfilling Greenville Technical College's commitment to economic development by building a strong workforce," explains Dr. Whirl. "CMI helps train students to be thoughtful about their work, collaborative in problem-solving, and efficient in the work they do. Companies are more likely to stay in the area and retain our workforce if our students are graduating with the skills these companies desire."

The SmartState® Program sees this collaborative partnership between Clemson and Greenville Technical College as an opportunity for growth. The Program is considering South Carolina's Technical Colleges as part of its future.

"We see it as an unprecedented area in education and economic development," says Dr. Whirl. "The technical student is being exposed to industry and graduate-level research projects. Meanwhile, the engineer is being exposed to practical challenges faced by technicians. We hope this collaboration becomes a national movement that will change the way in which we train the workforce and improve manufacturing efficiency."

*Clemson University International Center for Automotive Research (CU-ICAR)
Greenville Technical College's Center for Manufacturing Innovation (CMI)*



“The purpose of Clemson’s ICAR and Greenville Tech’s CMI collaboration is to help close the skills gap between engineer and technician, fostering better problem solving and improved product development in the workplace.”

– Keith Miller, Ph.D., President of Greenville Technical College

PIONEERING TELEMEDICINE

**Robert J. Adams, M.D., Endowed Chair for Stroke
Medical University of South Carolina**

Post-Traumatic Stress Disorder (PTSD) is the most common mental health disorder among veterans seeking treatment at VA hospitals. Individuals suffering from PTSD experience an increased risk for other mental health problems, including depression and suicide. Suicide statistics are more than double for veterans who suffer from PTSD.

Thanks to recent funding from the National Institute of Mental Health's (NIMH) Small Business Innovation Research (SBIR) program, Zeriscope, a telemedicine start-up company, is developing innovative technologies to improve treatment for PTSD patients. Zeriscope, which is backed by support from the SmartState® Program, received a \$900,000, two-year Phase I grant from NIMH. The company plans to use the funds to trial a newly developed telemedicine technology that could help reduce PTSD symptoms and accelerate recovery.

Zeriscope CEO, Bill Harley, M.B.A., one of the Principal Investigators of the new grant, indicates, "One of the best treatments for PTSD is prolonged exposure therapy. During prolonged exposure, patients engage in 'in vivo' exercises during which they approach situations 'in real life' that are safe, but avoided by the patient because they are reminded of the traumatic event in some way."

The new technology system has wearable devices that allow the therapist to interact directly with the patient during the in vivo exercises. The system provides patient-specific physiological and subjective data, allowing the therapist to guide the exercise and optimize outcomes.

A clinical trial of the new technology system will take place under the guidance of the grant's other Principal Investigator, Sudie Back, Ph.D. of the Medical University of South Carolina's (MUSC) Psychiatry and Behavioral Sciences Department, and the Ralph H. Johnson VA Medical Center.

"The innovative aspect of this telemedicine technology from Zeriscope is that, for the first time, it will allow the clinician to virtually accompany the patient during in vivo exercises and

use real-time biometrics to maximize the therapeutic benefit for each individual patient," says Dr. Back.

Dr. Back is conducting a clinical trial with 40 patients over the course of the next two years. Patients will undergo 12 sessions of treatment utilizing the new technology.

The outlook for PTSD patients with access to this new technology is very positive. Because they receive real-time, personalized therapy, the patients may be more likely to complete the treatment and experience greater reductions in their PTSD symptoms.

Led by Mr. Harley and co-founder Robert Adams, M.D., Endowed Chair for the Stroke Center, Zeriscope began in 2015 as a telemedicine platform company that utilizes the latest and most advanced technologies to move medical care closer to the patient.

"The overarching theme of all Zeriscope projects is telemedicine," says Dr. Adams. "Just as the REACH STROKE Network connects medical doctors immediately with stroke patients, this new technology for PTSD connects therapists with patients as they are engaging in treatment in real-world settings."

With the introduction of the new telemedicine system for PTSD, patients can receive treatment anywhere regardless of their distance to a V.A. or treatment hospital.

"Zeriscope's technology-based treatments are truly revolutionizing the way patients receive medical care," says Dr. Adams. "No matter the area of focus, the telemedicine platform can be applied to just about any field. We, at Zeriscope and the SmartState® Programs, are excited to change what's possible for our patients and innovate medicine.

"Someone will do this," adds Dr. Adams. "We want South Carolina to be leaders in the field."

Zeriscope's technology-based treatments are truly revolutionizing the way patients receive medical care.

— Dr. Robert Adams, Endowed Chair for Stroke



The Zeriscope research team includes Dr. Robert Adams (right center), Mr. Bill Harley (left center) and Dr. Sudie Back (second from right)

SMARTSTATE® PROGRAM: RETURN ON INVESTMENT

The primary mission of the SmartState® Program is to elevate the state's knowledge economy by generating high-skilled, high-wage jobs in South Carolina.

The primary mission of the SmartState® Program is to generate high-skilled, high-wage jobs in South Carolina. The research centers established by SmartState funding help to expand the state's knowledge base, create public-private partnerships, support startup firms, and help retain highly talented workers. The SmartState® Program actively supports the ongoing development of the knowledge economy – and jobs in the knowledge economy are among the highest paid of all industries in South Carolina. The creation of high-wage jobs across the state has continued to help South Carolina remain an attractive location for job seekers and economic expansion.

The knowledge economy relies heavily on intellectual capital. 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 2019, the SmartState® Program is responsible for helping to create and support approximately 14,927 jobs in South Carolina, which is associated with approximately \$2.8 billion in economic activity and \$853 million in labor income for South Carolinians that would not exist otherwise. Approximately 5,608 (38%) of these positions are knowledge economy jobs created directly through the SmartState®

Program, with the remaining 9,319 (62%) arising from additional spending activity generated through the economic multiplier effect.

The specific employment multiplier associated with these estimates is 2.7 – for every 10 knowledge economy jobs directly created through the SmartState® Program, an additional 17 jobs are created elsewhere in South Carolina. This multiplier effect is well above the state average – that is – each new job created through the SmartState® Program increases total South Carolina employment by more than it would if that job had been created in another industry of comparable size.

The average annual salary associated with a SmartState job in the knowledge economy is \$74,460. This is approximately 65 percent higher than the average annual salary among all jobs in South Carolina. When examining the salaries of all jobs associated with the SmartState® Program – including those created through the economic multiplier effect – the average annual salary is estimated to be \$57,134. This dollar amount is approximately 27 percent higher than the average annual salary among all South Carolina jobs.

Two key drivers for economic growth and development in the 21st century are innovation and technological development. The SmartState® Program creates and supports program centers designed specifically to encourage both of these activities through investments in research and development, startup companies, company recruitment, and retaining talented alumni. Ultimately, it is an ongoing expansion of the knowledge economy that will create additional high-wage, high-skilled jobs for South Carolinians – and the SmartState® Program has clearly become a state leader in these efforts.



“ One of the best predictors of economic success for individuals throughout this decade-long economic expansion has been post-secondary educational attainment. For example, over the past year alone, median earnings of college graduates have grown at twice the rate as those of high school graduates. The SmartState[®] Program, with its emphasis on growing the knowledge economy in South Carolina, has helped more South Carolinians to achieve economic success by generating nearly 15,000 jobs since 2002 with annual salaries that pay significantly above the state average. ”

– Dr. Joseph Von Nessen, Research Economist, Moore School of Business, University of South Carolina

SMARTSTATE® PROGRAM BY THE NUMBERS

3



Research Universities
Clemson, MUSC, UofSC

6



Industry Clusters¹

51



SmartState® Centers of
Economic Excellence

74



SmartState Endowed
Chairs appointed
(of the 85 created)

\$197.6M



State Funds Invested²

\$2.8B



Return on Investment³

14,927



Total Employment (All jobs)³

\$74,460



Average Salary of a Knowledge
Economy Job³

95



Start-ups and Corporate
Relocations⁴

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 2019 Economic Impact of the SmartState® Program analysis conducted by the Darla Moore School of Business. Of the total 14,927 jobs, 5,608 are knowledge economy jobs created directly through the SmartState® Program, including 653 SmartState personnel, 1,008 start-up company and corporate relocation personnel, 34 alumni placed with in-state employers, and 3,947 employed through Extramural Research Funding. The remaining 9,319 jobs are indirect employment arising from the economic multiplier effect.

⁴ See page 15 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. Sirrinc Foundation
- Kellogg Foundation
- Kentwood
- 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 UofSC, MUSC, and Clemson University:

- 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
- Glycoph, LLC
- Hydrogen Hybrid Mobility, LLC
- ImmoMod, Inc.
- InDepth Pharmaceuticals
- Inquisatex Epitherapeutics, LLC
- IntrusinMyFamily.com
- MagAssemble, LLC
- MicroVide
- MitoChem Therapeutics, LLC
- MitoHealth, Inc.
- 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 Corporation
- Zeriscop, 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.*
- CECAS
- Charge2Target
- CGF
- CleanEnergy
- Computech*
- Coolion Technologies*
- C-P-S Group
- CU Corp Foundations
- DreamWeaver*
- EHD Tech
- Environment and Health Inc. (EHG)
- Esys Automation
- Fields Group, LLC.*
- Focus Chemicals*
- Formel D
- 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
- MTC Federal Credit Union
- Mumford Industries*
- OmniSource
- Parkway Products
- People Link
- Protterra, Inc.
- RESA (AIG-Clemson)
- Roding*
- Sage Automotive Interiors*
- SC Manufacturing Alliance
- SC Research Authority (SCRA)
- Senex Biotechnology, Inc.
- Simpack, Inc.
- SMT
- SWJ Breilman
- ThermoPur Technologies*
- Tigges*
- Tenin Holding
- 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 multitenant 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.

MUSC SCIENTISTS ARE LEADING THE WAY FOR FEMALE RESEARCHERS

Carol Feghali-Bostwick, Ph.D., Kitty Trask Holt Endowed Chair for Scleroderma Research
Betty Tsao, Ph.D., Richard M. Silver Endowed Chair for Inflammation Research
Medical University of South Carolina

The Medical University of South Carolina (MUSC) is home to two female researchers who are developing innovative discoveries in rheumatology and pioneering change in female leadership within the medical community. Carol Feghali-Bostwick, Ph.D., is the Kitty Trask Holt Endowed Chair for Scleroderma Research. Betty Tsao, Ph.D., is the Richard M. Silver Endowed Chair for Inflammation Research with a focus on lupus. Both are in the Inflammation and Fibrosis Research Center of Economic Excellence.

Dr. Tsao is a founding member of international Systemic Lupus Erythematosus (SLE) genetic consortium and an invited speaker of International SLE Genetic Symposium in 2018 and 2019. She is a co-Editor of the journal *Arthritis & Rheumatology*, and a member of Medical Scientific Advisory Council, Lupus Foundation of America, Inc.

Dr. Tsao's research in lupus has recently been awarded a variety of grants and funding of nearly \$10 million over the course of the next five years, which aims to identify genetic risk variants and to understand how these variants contribute to the disease development in lupus patients. Her laboratory has developed a new mouse model that has been genetically engineered to change a single base code in the genome, which represents a risk gene variant for lupus as well as other rheumatic diseases, including scleroderma. Dr. Tsao and her research team hypothesize that the mice carrying the risk variant are prone to develop lupus-like or scleroderma-like disease based on the mouse's reaction to different environmental triggers. Utilizing this new mouse model, they hope to understand the underlying molecular components of lupus and scleroderma, which will facilitate finding treatment commonalities suitable for most patients.

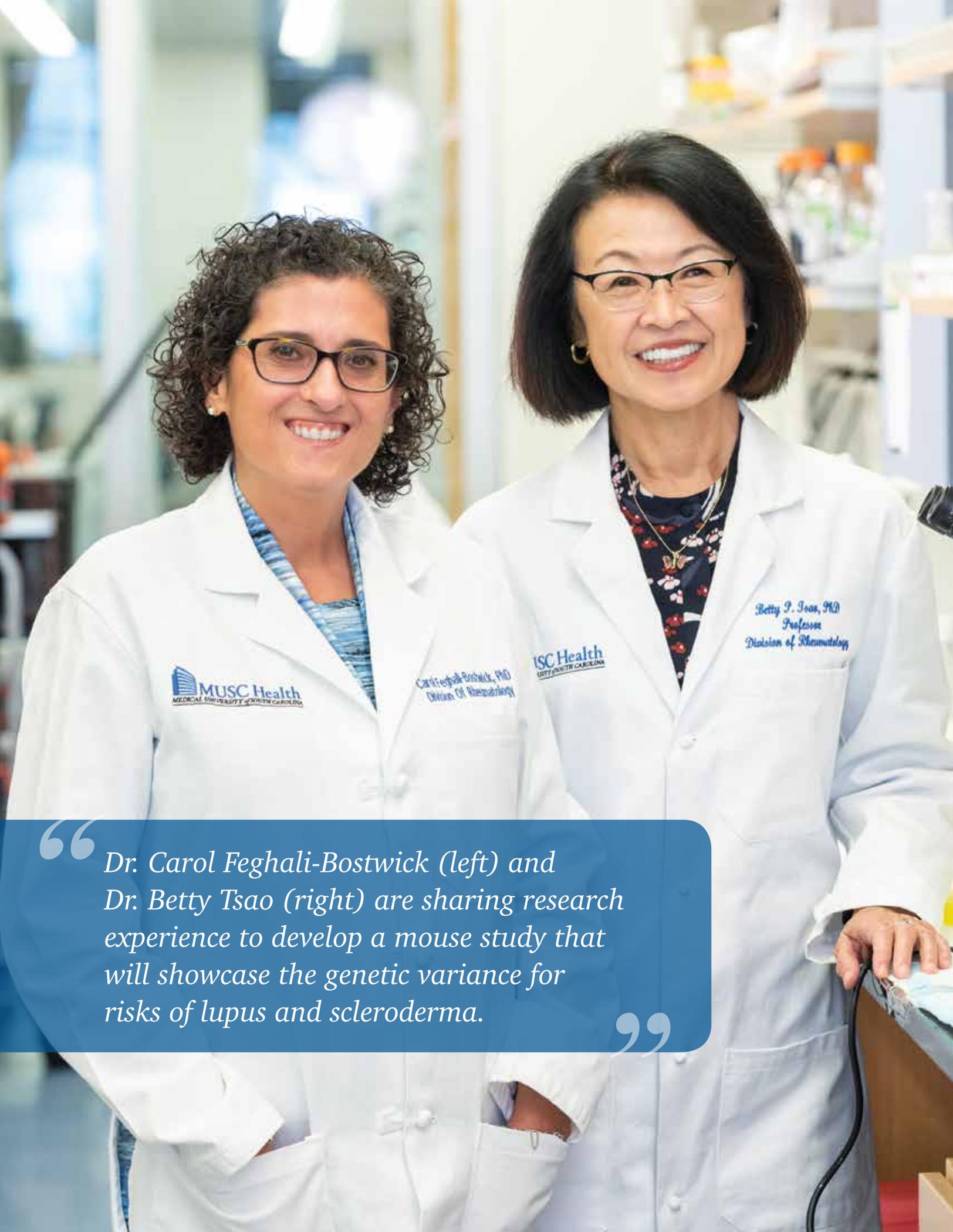
Drs. Tsao and Bostwick are sharing research experience to develop a mouse study that will showcase the genetic variance for such risks. "Dr. Bostwick uses a drug-induced

mouse model of scleroderma that we are following in our research lab," says Dr. Tsao. "Her protocol is helping us to establish the drug-induced scleroderma model. We are also leveraging her expertise to study scleroderma-related tissue damage by comparing mouse littermates that inherit the wild-type or the disease risk variant."

Dr. Bostwick is leading the way in scleroderma research on a national level. She explains, "Since fibrosis in scleroderma affects multiple organs, scleroderma is considered a prototypical disease. Solving the fibrosis puzzle in scleroderma will have broad impact on multiple other diseases as well."

Dr. Bostwick is Vice Chair of the Board of Directors of the National Scleroderma Foundation, which has 21 chapters across the nation. As one of the leading scleroderma scientist, Dr. Bostwick has also been invited to speak internationally for her work in generating unique scleroderma research with a cohort of twins—one with scleroderma and the other without. She was an opening speaker at an international workshop in Cambridge, UK, in at the World Congress on Scleroderma in Prague. Dr. Bostwick has also been invited as the keynote speaker at an upcoming Japanese conference in Yokohama, Japan, giving her international recognition.

When Dr. Bostwick isn't busy making innovative discoveries in scleroderma research, she's leading MUSC's Advancement, Recruitment, and Retention of Women (ARROW) program. This program provides support for women faculty, fellows, and students. It's no secret that Drs. Tsao and Bostwick are leading change for female scientists on MUSC's campus and within the medical industry. Their international and regional recognitions have set them apart and have placed their research, MUSC, and the state of South Carolina on a national stage.



“*Dr. Carol Feghali-Bostwick (left) and Dr. Betty Tsao (right) are sharing research experience to develop a mouse study that will showcase the genetic variance for risks of lupus and scleroderma.*”



“Using strategic collaborations among many different disciplines, we have created an infrastructure that is now bearing fruit and making a difference for the lives of aging adults in South Carolina.”

– Dr. Sue Levkoff, Endowed Chair in Community and Social Support for SmartHOME

SENIORSMART® PIONEERS TECHNOLOGY THAT ENABLES OLDER ADULTS TO REMAIN HEALTHY

**Sue Levkoff, ScD, MSW, SM, Endowed Chair in Community and Social Support for SmartHOME®
SeniorSMART® Center of Economic Excellence
University of South Carolina**

When Sue Levkoff, ScD, MSW, SM, was brought to the University of South Carolina (UofSC) in 2010 as the Endowed Chair in Community and Social Support for SmartHOME®, it was her dream to build a strong research foundation that supported smart technology for aging adults. Today, that dream is reality as her work with the SeniorSMART® Center of Economic Excellence has spread far and wide. Thanks to a trans-disciplinary approach, Dr. Levkoff is positioning the Center for a great deal of success for years to come.

"Using strategic collaborations among many different disciplines, we have created an infrastructure that is now bearing fruit and making a difference for the lives of aging adults in South Carolina," says Dr. Levkoff. "It's taken years to build these strong and unique partnerships between social scientists, public health researchers, and engineers. Now that we are actively collaborating with one another, we are developing technology and research that promotes good health and prevents diseases among the older population."

One particular SeniorSMART initiative that is gaining momentum is the Smart Home project. A Smart Home helps seniors maintain independent mobility and age in place. "Developing Smart Homes brings a collaborative, interdisciplinary spirit to life," explains Dr. Levkoff. "We've used input from many colleagues and community leaders to build a place where seniors can age safely in the comfort of their own home."

South Carolina's first-ever Smart Home is now operational in Northeast Columbia, and is being led by Principal Investigator, Shaun Owens, Ph.D., MPH, in the College of Social Work. Working alongside Dr. Levkoff, Dr. Owens is creating a home that is ADA-compliant and also universally designed.

"Universal design is the design and composition of a home so that it can be accessed and used to the greatest extent possible by a person, regardless of age or disability," says Dr. Owens. "It's a key component to success."

The Smart Home in Columbia is now home to Margie Turner. After the 60-year-old suffered two falls down the stairs in

her previous home, she realized it was time for a change. She was not ready to give up her independence and could not afford an assisted living facility. But she needed a home that was safer and easier for her to navigate as she aged. Thanks to the partnership between SeniorSMART and an affordable housing organization called "UpLift," Mrs. Turner was selected as the perfect candidate to reside in the technology-assisted research home.

"We will follow Mrs. Turner's success in the home as part of our research," says Dr. Owens. "The intelligent home is equipped with remote controlled devices, a wheelchair accessible shower, advanced security system, pull-down and pull-up shelving, and most importantly, a telehealth system that allows Mrs. Turner to have consultations with her doctors via her television. She can now receive the healthcare she needs without the worry of transportation to and from the doctor's office."

SeniorSMART is developing an array of other senior-focused technologies including a "Divorce After 50" website that supplies advice and guidelines to healthy dating and encouraging safe sex for older women; computer algorithms to detect and eventually prevent falls without the need of wearable devices that the Center is working on in collaboration with Juan Caiedo, DSc, MS, at UofSC's College of Engineering and Computing; a remote monitoring system for nurses to prevent readmissions for older patients with chronic heart failure that the Center is working on with Sue Heiney, PhD, RN, FAAN, of UofSC's College of Nursing; and a software platform that connects patients, providers, and their pharmacies to promote medication adherence for middle age and older adults that the Center has partnered with Brandon Brookstaver, PharmD, FCCP, FIDSA, BCPS, on from UofSC's College of Pharmacy.

As baby boomers age, South Carolina's older population is growing at a rapid rate. The need for senior technology is growing as a result. These needs are now being met as a result of the work being done by Dr. Levkoff and her team at SeniorSMART.

CLEMSON'S DEEP ORANGE PROGRAM IS THE FUTURE OF AUTOMOTIVE INNOVATION

**Chris Paredis, Ph.D., BMW Endowed Chair in Systems Integration
International Center for Automotive Research (CU-ICAR)
Clemson University**

According to Chris Paredis, Ph.D., of Clemson University, by the year 2035 there will be a major emphasis on sustainability. To enhance the sustainability of mobility, cars are expected to be autonomous within a geo-fenced area and possibly even fleet-owned rather than individually owned. Dr. Paredis is the BMW Endowed Chair in Systems Integration at Clemson's International Center for Automotive Research (CU-ICAR). He is helping prepare the next generation of South Carolina's workforce by challenging students to build a sustainable, autonomous vehicle as a part of the University's Deep Orange program.

In its eleventh year, Deep Orange is a two-year masters degree program for automotive engineering students. Working collaboratively with faculty and industry partners, students focus on producing a new vehicle prototype each year, integrating breakthrough product innovations and processes. Dr. Paredis is the program's director. He says the work with the Deep Orange program is fulfilling, but also challenging. His students are asked to not only think about making a car better, but also making it for the future. Students are challenged to consider automation, sustainability, accessibility, and functionality.

When Dr. Paredis is not meeting with his Deep Orange students, he's focusing research on advancing the process,

method, and design of cars effectively and efficiently. "While it is important to improve the engineered parts that cars are made of, it is also just as important to improve the tools and the processes by which we use to make these parts. That's a large part of my research," says Dr. Paredis.

Dr. Paredis is studying the automotive industry's current trends in virtual prototyping and digital engineering. He is researching the change in trialing a car through physical driving on the road, which is quite time-consuming, as compared to simulated car trials that are computerized and much faster in capturing data.

According to Dr. Paredis, the car manufacturing industry is experiencing a shift from producing hardware to producing electronic software in vehicles. As a result, the future of engineering will be heavily focused on modeling and simulation. "Advancing these capabilities within today's students is imperative for a successful workforce tomorrow," says Dr. Paredis. "The Deep Orange program is just one of many ways in which we are advancing the state's knowledge economy and making a competitive workforce."

“While it is important to improve the engineered parts that cars are made of, it is also just as important to improve the tools and the processes by which we use to make these parts.”

– Chris Paredis, Ph.D.
BMW Endowed Chair in Systems Integration



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 2019. 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. UofSC’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 2019, 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
- 74** SmartState Endowed Chairs Appointed
- 11** SmartState Endowed Chairs Remaining to be Appointed



13 Awarded
16 Created
15 Appointed
01 Remaining

18 Awarded
28 Created
25 Appointed
03 Remaining

20 Awarded
41 Created
34 Appointed
07 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. Sirrinc Foundation Endowed Chair in Advanced Fiber-Based Materials

Corporate Partner(s):

J.E. Sirrinc Textile Foundation

External Funding Above Match:
\$15.5 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: UofSC

Endowed Chair(s):

Dr. Jamie Lead

External Funding Above Match:
\$5.9 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: UofSC

Endowed Chair(s):

UofSC is recruiting one endowed chair.

External Funding Above Match:
\$6.3 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: UofSC

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 multiphysics-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. Sirrinc Textile Foundation Endowed Chair in Optical Fiber

Corporate Partner(s):

J.E. Sirrinc Textile Foundation

External Funding Above Match:
\$35 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: UofSC

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 Vehicle System Design

Corporate Partner(s):

Hertz Corporation, Duke Energy

External Funding Above Match:
\$14 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. Chris Paredis, Clemson

BMW Endowed Chair in Automotive Systems Integration

Corporate Partner(s):

BMW, Mazda, GM and others

External Funding Above Match:
\$9.5 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:
\$16.3 million

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

VEHICLE ELECTRONIC SYSTEMS INTEGRATION*

Award Date: 2004

State Award Amount: \$3 million

University: Clemson

Endowed Chair(s):

Dr. Venkat Krovi

Michelin Endowed Chair in Vehicle Electronic Systems Integration

Corporate Partner(s):

Michelin

External Funding Above Match:
\$5.8 million

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

 **Biomedical****ADVANCED TISSUE BIOFABRICATION****Award Date:** 2008**State Award Amount:** \$5 million**Universities:** MUSC, UofSC, Clemson**Endowed Chair(s):**

Dr. Bruce Gao, Clemson
Endowed Chair in Biofabrication Engineering

Dr. Henry Sucov, MUSC
Endowed Chair in Biofabrication Biology

UofSC is recruiting an Endowed Chair in *Biofabrication Engineering*

External Funding Above Match: \$672,993**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:** UofSC, MUSC**Endowed Chair(s):**

Dr. Chris Rorden, UofSC
Endowed Chair in Neuroimaging

Dr. Hesheng Liu, MUSC
Endowed Chair in Imaging Science

Dr. Leonardo Bonilha, MUSC
Endowed Chair in Brain Imaging

External Funding Above Match: \$52.1 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:** UofSC, MUSC**Endowed Chair(s):**

Dr. Jeffery Twiss, UofSC
Child and Adolescent Neurochemistry

Dr. Manuel Casanova, UofSC
Translational Clinical Research

Dr. Bobby Thomas, MUSC
Neurodevelopmental Disorders

External Funding Above Match: \$13.8 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:** UofSC, MUSC**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, UofSC
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:** UofSC**Endowed Chair(s):**

Dr. John Brooks

Corporate Partner(s): Smith & Nephew**External Funding Above Match:** \$17.3 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:** MUSC, UofSC**Endowed Chair(s):**

Dr. Les Lenert, MUSC

Medical Bioinformatics

Dr. Xiaoming Li, UofSC

*Translational Clinical Research***Corporate Partner(s):**

The Duke Endowment

External Funding Above Match:

\$33.5 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**Universities:** 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:**

\$6.3 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:**

\$48.3 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:**

\$8.6 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:

\$20.8 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**Universities:** MUSC, UofSC, 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

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

Corporate Partner(s): AT&T Foundation**External Funding Above Match:** \$52.7 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
Endowed Chair in Proteomics

Dr. Anand S. Mehta
Endowed Chair in Proteomic Biomarkers

External Funding Above Match: \$25.1 million

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

REGENERATIVE MEDICINE***Award Date:** 2004**State Award Amount:** \$5 million**Universities:** MUSC, UofSC, Clemson**Endowed Chair(s):**

Dr. Martin Morad, UofSC
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: \$45.3 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:** UofSC, Clemson**Endowed Chair(s):**

Dr. Sue Levkoff, UofSC
SmartHOME®

Dr. Julius Fridriksson, UofSC
SmartBRAIN™

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

External Funding Above Match: \$17 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, UofSC**Endowed Chair(s):**Dr. Robert Adams, MUSC
*Stroke*Dr. Mark Chimowitz, MUSC
*Countess Alicia Paolozzi Endowed
Chair in Translational Neurology*Dr. Souvik Sen, UofSC
*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:** MUSC, UofSC**Endowed Chair(s):**Dr. Kenneth Ruggiero, MUSC
*Technology Applications for Disease
Prevention, Management, and Risk
Reduction*Dr. Delia West, UofSC
*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:**
\$77.8 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
*Endowed Chair in Translational Biomedical
Informatics***External Funding Above Match:**
\$539,697**Research Focus:** The new Center will provide expertise in translational biomedical informatics essential for cutting-edge, innovative methodologies to link genetic/genomic data with vast amounts of clinical data. The contributions of the center to data sharing/analysis will decrease cost and increase efficiency in research and healthcare delivery and provide a robust IT platform for industry partnerships and new company formation.**VISION SCIENCE****Award Date:** 2005**State Award Amount:** \$4.5 million**University:** MUSC**Endowed Chair(s):**Dr. Baerbel Rohrer
*Chair in Gene and Pharmaceutical
Treatment of Retinal Degenerative Diseases*MUSC is recruiting one *endowed chair
in Bioengineering Research*.**Corporate Partner(s):** Alcon Labs,
Taligen, Alexion Pharmaceuticals**External Funding Above Match:**
\$30.1 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

Universities: USC

Endowed Chair(s):

Dr. John Regalbuto

External Funding Above Match:
\$14.8 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: UofSC

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

Universities: UofSC

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:
\$8.9 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

Universities: UofSC

Endowed Chair(s):

Dr. Kevin Huang, UofSC
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

Universities: UofSC

Endowed Chair(s):

Dr. Jochen Lauterbach

External Funding Above Match:
\$14.2 million

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

*Graduated Center

Information Science

CYBERINSTITUTE

Award Date: 2008

State Award Amount: \$2 million

Universities: 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

Universities: UofSC

Endowed Chair(s):

Dr. Wolfgang Dahmen

Williams-Hedberg-Hedberg Chair of Mathematics

External Funding Above Match:

\$3.3 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: UofSC

*Graduated Center

Endowed Chair(s):

Dr. Laura B. Cardinal

Discovery and Innovation

Corporate Partner(s):

Fluor Foundation and Savannah 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:

\$13.1 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: UofSC

Endowed Chair(s):

Dr. Simon Hudson

Corporate Partner(s):

Rawle Murdy

US Travel Association (USTA)

External Funding Above Match:

\$601,297

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:

\$8.7 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.

CANCER DRUG DISCOVERY*

Award Date: 2004

State Award Amount: \$5 million

Universities: MUSC, UofSC

Endowed Chair(s):

Dr. John LeMasters, MUSC
GlaxoSmithKline Endowed Chair

Dr. Patrick Woster, MUSC
Chemical Biology/Medicinal Chemistry Endowed Chair

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

Dr. Mitzi Nagarkatti, UofSC
Structural Biology Endowed Chair

Corporate Partner(s):

GlaxoSmithKline

External Funding Above Match:
\$24.1 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

University: MUSC, UofSC

Endowed Chair(s):

MUSC is recruiting the *Abney Endowed Chair Remembering Sally Abney Rose*

Dr. Xue Zhong Yu, MUSC
Robert K. Stuart, MD Distinguished Chair in Hematology and Oncology

External Funding Above Match:
\$35.9 million

Research Focus: Developing new technologies for isolating, growing, and manipulating cancer stem cells. This will enable the Center to find ways to use adult stem cells from bone marrow or organs to treat cancer.

*Graduated Center

GASTROINTESTINAL CANCER DIAGNOSTICS

Award Date: 2005

State Award Amount: \$5 million

Universities: MUSC

Endowed Chair(s):

MUSC is recruiting the *Charles Westerfield Coker Distinguished Chair in Gastrointestinal Malignancy*

Dr. Gustavo Leone
Grace DeWolff Endowed Chair in Medical Oncology

Corporate Partner(s):

Roche Carolina, Bank of America

External Funding Above Match:
\$22.9 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

Corporate Partner(s):

Duke Energy

External Funding Above Match:
\$41.8 million

Research Focus: Develop models for translational research and study of lipidomics and their pathobiology with an emphasis on cancer and inflammation.

MEDICATION SAFETY AND EFFICACY

Award Date: 2008

State Award Amount: \$2 million

Universities: MUSC, UofSC

Endowed Chair(s):

Dr. Charles Bennett, UofSC
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, UofSC

Endowed Chair(s):

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

Dr. Igor Roninson, UofSC
Endowed Chair in Drug Efficacy

External Funding Above Match:
\$42.8 million

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

SMARTSTATE® PROGRAM

ENDOWED CHAIRS

The role of SmartState® Program Endowed Chairs is to serve as catalyst for the state's knowledge economy. Seventy-four 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. Leonardo Bonilha, Dr. Henry Sucov, and Dr. Bobby Thomas.



ROBERT ADAMS
Stroke
MUSC



ROBERT F. BALDWIN
Urban Ecology and Restoration
Clemson



JOHN BALLATO
Optical Materials/
Photonics
Clemson



BRIAN BENICEWICZ
Polymer Nanocomposites
UofSC



CHARLES BENNETT
Medication Safety
and Efficacy
UofSC



THEODORE BESMANN
General Atomics
UofSC



LEONARDO BONILHA
Gastrointestinal
Cancer Diagnostics
MUSC



JOHN BROOKS
Effectiveness Research
in Orthopedics
UofSC



DAN GABRIEL CACUCI
Nuclear Science and
Energy
UofSC



LAURA B. CARDINAL
Innovation and
Commercialization
UofSC



MANUEL CASANOVA
Childhood Neurotherapeutics
UofSC



KENNETH CATCHPOLE
Health Facilities Design
and Testing
MUSC



MARK CHIMOWITZ
Stroke
MUSC



CYNTHIA CORBETT
CEPS
UofSC



CHRISTOPHER COWAN
Neurosciences
UofSC



WOLFGANG DAHMEN
*Data Analysis
 Simulation Imaging
 and Visualization*
 UofSC



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®
 UofSC



BRUCE GAO
*Advanced Tissue
 Biofabrication*
 Clemson



JEREMY GILBERT
Regenerative Medicine
 Clemson



MARK HAMANN
Cancer Drug Discovery
 MUSC



KEVIN HUANG
Solid Oxide Fuel Cells
 UofSC



SIMON HUDSON
*Tourism and Economic
 Development*
 UofSC



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)
UofSC



JAMIE LEAD
Environmental Nanoscience and Risk
UofSC



JOHN LEMASTERS
Cancer Drug Discovery
MUSC



LES LENERT
Healthcare Quality
MUSC



GUSTAVO LEONE
Gastrointestinal Diagnostics
MUSC



SUE LEVKOFF
SeniorSMART®
UofSC



XIAOMING LI
Healthcare Quality
UofSC



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



LAIN MEARNS
Automotive Manufacturing
Clemson



ANAND S. MEHTA
Proteomics
MUSC



STEPHANE MEYSTRE
Translational Biomedical Informatics
MUSC



MARTIN MORAD
Regenerative Medicine
UofSC



MITZI NAGARKATTI
Cancer Drug Discovery
UofSC



DEEPAK NIHALANI
*Renal Disease
 Biomarkers
 MUSC*



JIHAD OBEID
*Clinical Effectiveness
 and Patient Safety
 MUSC*



BESIM OGRETMEN
*Lipidomics Pathobiology
 and Therapy
 MUSC*



CHRIS PAREDIS
*Automotive Systems
 Integration
 Clemson*



JOHN REGALBUTO
*Catalysis for Renewable
 Fuels
 UofSC*



BAERBEL ROHRER
*Vision Science
 MUSC*



IGOR RONINSON
*Translational Cancer
 Therapeutics
 UofSC*



CHRIS RORDEN
*Brain Imaging
 UofSC*



JOHN SCHAEFER
*Clinical Effectiveness
 and Patient Safety
 MUSC*



SOUVIK SEN
*Stroke
 UofSC*



HENRY SUCOV
*Advanced Tissue
 Biofabrication
 MUSC*



KENNETH TEW
*Translational Cancer
 Therapeutics
 MUSC*



BOBBY THOMAS
*Child Neurotherapeutics
 MUSC*



FRANK TRIEBER
*Technology Center to
 Enhance Healthful
 Lifestyles
 MUSC*



BETTY TSAO
*Inflammation and
 Fibrosis Research
 MUSC*



JEFFERY TWISS
*Childhood
 Neurotherapeutics
 UofSC*



MAREK URBAN
*Advanced Fiber Materials
 Clemson*



MICHEL VAN TOOREN
*Multifunctional Materials
 & Structures
 UofSC*



DELIA WEST
*Technology Center to
 Enhance Healthful
 Lifestyles
 UofSC*



PATRICK WOSTER
*Cancer Drug Discovery
 MUSC*



XUE ZHONG YU
*Cancer Stem Cell
 Biology and Therapy
 MUSC*

CLEMSON'S COMSET IS PIONEERING THE FUTURE OF OPTICAL FIBER

**John Ballato, Ph.D., Sistine Endowed Chair in Optical Fiber
Center for Optical Materials Science and Engineering Technologies (COMSET)
Clemson University**

It's hard to imagine a world that does not have the Internet to solve all of our business, entertainment, and social needs. At the Center for Optical Materials Science and Engineering Technologies (COMSET) on Clemson University's innovation campus in Anderson County, researchers are positioned in the middle of an industry valued at nearly \$8 trillion annually. It is here that they are developing advanced materials, such as optical fiber that generate, transmit, manipulate, and utilize light. Without optical fiber, the Internet would not be the light-speed that it is today. In short—they are creating materials to cultivate our Internet highway.

Optical fiber is a major research focus at COMSET and is championed by John Ballato, Ph.D., the Sistine Endowed Chair in Optical Fiber. Dr. Ballato boasts that the Center is the only academic facility in the country with industry-level capabilities to make optical fiber. Much like a world without the Internet, Dr. Ballato says he considers it hard to imagine South Carolina being amongst the best in the world in optical fiber research without the SmartState® Program.

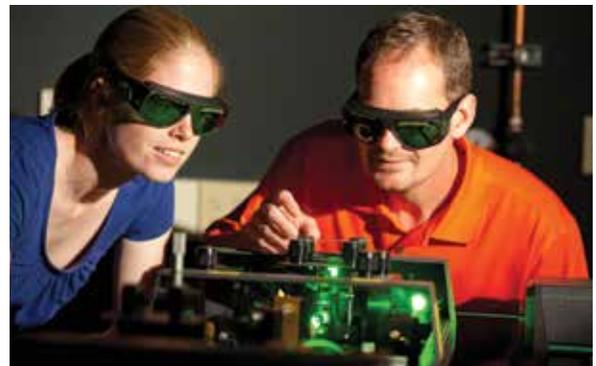
"What we have achieved at COMSET would not be possible without the vision and support of the SmartState program. The philosophy instilled by the program's early leaders was truly brilliant," credits Dr. Ballato. "Infrastructure doesn't appear overnight. But thanks to a confluence of opportunity, vision, and the public-private partnerships that was

fostered by the SmartState® Program at its inception—and its continued support today—our state now has something that does not exist anywhere else in the country."

Dr. Ballato is referring to his team's operation of a world-class facility for fabricating advanced optical fiber. Because of South Carolina's rich manufacturing history, the state's workforce understands this industry. Instead of textiles, his team is creating a higher-valued product. "A higher-valued product contributes to higher paying salaries for our employees, an international reputation, and more revenue for our state," explains Dr. Ballato.

COMSET has brought in over \$75 million in research funding since its formation in 2000. It employs over 40 faculty and staff. Recently, the Center received a unique piece of manufacturing equipment used to make the glass from which the fiber is drawn. The equipment was valued at over \$900,000.

When asked about South Carolina's future, Dr. Ballato says, "I'm proud to be a part of this incredible institution at Clemson and the brilliance behind the SmartState® Program. If history repeats itself, then we are set for much continued success in the growth of our state's revenue, workforce, and our knowledge economy!"



“Thanks to a confluence of opportunity, vision and the public-private partnerships that was fostered by the SmartState® Program at its inception—and its continued support today—our state now has something that does not exist anywhere else in the country.”

— Dr. John Ballato, (right) Sistine Endowed Chair in Optical Fiber



“South Carolina’s tourism industry has experienced an enormous amount of upward growth, now worth nearly \$23 billion to our economy.”

– Dr. Simon Hudson, Endowed Chair
for Tourism and Economic Development



AS SC'S TOURISM BLOSSOMS, THE NEED FOR TOURISM RESEARCH GROWS

**Simon Hudson, Ph.D., Endowed Chair for Tourism and Economic Development
Center for Tourism and Economic Development
University of South Carolina**

Simon Hudson, Ph.D., Endowed Chair for Tourism and Economic Development came to the University of South Carolina (UofSC) in 2010. At the time, he said he vividly remembers a conversation he had with a team of consultants who had just spent a year analyzing South Carolina's tourism industry. "Their conclusion was that South Carolina was like a flower waiting to bloom," smiles Dr. Hudson. "And nearly 10 years later, I believe the petals are starting to open."

Dr. Hudson explains that within the last decade, South Carolina's tourism industry has experienced an enormous amount of upward growth, now worth nearly \$23 billion to our economy. Tourism means jobs and economic development. South Carolina's tourism sector employs approximately 250,000 people or roughly 10 percent of the state's total workforce. "With these numbers, it's apparent that tourism is impactful and should not be ignored," he adds.

Dr. Hudson goes on to explain that strong tourism and hospitality is fundamental to long-term sustainability and for economic prosperity in many areas of the state. "But there can be too much of a good thing," says Dr. Hudson. "The term 'overtourism' is used to describe places where locals or visitors feel that there are too many visitors and, as a result, the quality of life in the area is deteriorating. Tourism needs to be managed and researched carefully to prevent this from happening."

That is the goal of Dr. Hudson's work at the Center for Tourism and Economic Development at UofSC. It is here that Dr. Hudson and his team is studying the challenge that many businesses in the tourism and hospitality sector are currently

facing. The businesses are experiencing significant problems with recruitment and retention, as well as facing substantial skills shortages. These challenges have resulted in problems not just for individual companies, but for the industry's overall competitiveness.

"We were recently awarded a grant from the Department of Commerce's Economic Development Administration (EDA) to develop a Tourism and Hospitality Employment Plan (TEP) for South Carolina," says Dr. Hudson. "The purpose of this project is to provide a scientific assessment of workforce challenges in the tourism and hospitality industry, and recommend appropriate solutions for the workforce problems faced in the state. We should complete this early in 2020."

South Carolina's tourism will continue to prosper, according to Dr. Hudson. The state boasts the highest number of golf holes per capita in the U.S. Our total economic impact of golf in the state was \$2.6 billion in 2018 and was responsible for 31,434 jobs. The equine sector is also experiencing significant growth. Dr. Hudson's team just completed a project funded by the South Carolina Department of Agriculture that found the equine sector generates \$1.9 billion annually in South Carolina and is responsible for 28,545 jobs.

"These numbers are much higher than those produced in the last study of this nature conducted in 2004," says Dr. Hudson. "The data from our study will be used to inform future policy and business decisions in hopes of continuing much success in tourism and economic development in South Carolina."



“Dr. Woster has been recognized as one of the most acclaimed medicinal chemists in the world by The American Chemical Society.”

Patrick Woster, Ph.D., Endowed Chair in Drug Discovery

MUSC'S DR. PATRICK WOSTER AMONG ELITE MEDICINAL CHEMISTS IN THE WORLD

**Patrick Woster, Ph.D., Endowed Chair in Drug Discovery
Cancer Drug Discovery Center
Medical University of South Carolina**

Patrick Woster, Ph.D., is the Endowed Chair in Drug Discovery and Director of the SmartState® Cancer Drug Discovery Center. He is also the Chair of the Department of Drug Discovery and Biomedical Sciences at the Medical University of South Carolina (MUSC).

"In high school, I drove the delivery car for a local pharmacy," recalls Dr. Woster. "As a kid, I thought being a pharmacist would be a good career choice, but that decision took a turn in a different direction when I arrived at pharmacy school. I got a job working with a brilliant medicinal chemist named Ted Roche. He inspired me to pursue graduate education, and taught me so much about medicinal chemistry and how it is a driving force behind medicine. And just like that, I was hooked."

Low and behold, that kid driving the pharmacy delivery car would later turn out to be recognized as one of the most acclaimed medicinal chemists in the world. The American Chemical Society inducted Dr. Woster into the 2019 Medicinal Chemistry Hall of Fame in July. He is one of only four researchers in the world to be selected for induction this year.

"It's very gratifying to be recognized," says Dr. Woster. "To be in the company of some of the world's greatest medicinal chemists—many of whom I have admired throughout the years—it's quite an honor."

Dr. Woster is the first to acknowledge that collaboration is the key to a thriving research program. He credits his business partner and long-time collaborator, Robert A. Casero, Ph.D. of Johns Hopkins University, for the success of his research. The two co-founded a new start-up business, Inqisatex Epitherapeutics, LLC, using their research as the

business platform. Drs. Woster and Casero work together to discover small molecules that can control gene expression. The two were the first to produce small-molecule inhibitors of lysine-specific demethylase 1 (LSD1). LSD1 inhibitors represent a significant discovery because they help to promote the re-expression of tumor suppression factors. Their research will play a significant role in the treatment of cancer, as well as other diseases such as sickle cell anemia.

Dr. Woster also credits the financial support his research has received as a factor in his success. "None of this would be possible without the generous support of our benefactors. We have received significant funding from the National Institutes of Health over the years, and have received funding from the World Health Organization. We recently secured a grant from the Doris Duke Charitable Foundation that provides three years of funding for our work with LSD1 inhibitors," says Dr. Woster. "We are grateful for the kind support of our donors."

Dr. Woster says he looks forward to continued success with his LSD1 studies, along with many other areas of focus. His work is making significant progress toward finding treatment, with the ultimate goal of finding cures. Dr. Woster says the collaborative spirit at MUSC is unlike any other he has experienced. He praises the techniques, laboratories, colleagues, and resources of South Carolina for contributing to his continued success.

Phillip D. Hall, Pharm. D., Dean of the College of Pharmacy at MUSC notes Dr. Woster is well deserving of this recognition. "Induction into the ACS Medicinal Chemistry Hall of Fame acknowledges, on a national stage, Dr. Woster's outstanding career, not only as a scientist but as a colleague, collaborator and mentor," says Dr. Hall.



“
To reach a goal you have never before attained, you must do things you have never before done.
”

– Richard G. Scott, American Scientist

PIONEERING THE FUTURE

In April of 2002, the South Carolina General Assembly passed the sanctioning legislation of the South Carolina Centers of Economic Excellence that would pioneer the way to some of the state's, nation's, and world's most innovative ideas and the people behind those ideas.

As this report demonstrates, thanks to the SmartState Centers, our state boasts one of only four researchers in the world inducted into the 2019 Medicinal Chemistry Hall of Fame, the nation's only academic facility with industry-level capabilities to make optical fiber, and the nation's leading researcher in scleroderma research. It has benchmarked international research that has given our state a glowing reputation for advancement in the areas of healthcare, technology, and manufacturing.

It is evident that the SmartState® Program has improved our state's knowledge economy. It has created jobs and sustained growing economic development. SmartState's multiplier effect represents the economic return on dollars spent or jobs created in the local economy. SmartState's multiplier effect is significantly higher than the state's average. This proves the SmartState® Program continues to create and support a large volume of high-wage, high-skilled positions in South Carolina.

In closing, we would like to thank the members of the General Assembly for your courageousness to create a never-before program such as this. Because of our lawmakers, universities, endowed chairs, business leaders, philanthropic supporters, and the public, we have pioneered South Carolina to achieve goals that have never before been attained.





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“The SmartState® Program continues to be a national leader in statewide economic development through research and innovations. South Carolina research institutions demonstrate the effectiveness possible when key stakeholders across higher education, business and government collaborate to improve the quality of life for our state’s citizens.”

– Rusty L. Monhollon, Ph.D., President & Executive Director, SC Commission on Higher Education



SMARTSTATESC.ORG

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

**SOUTH CAROLINA CENTERS
OF ECONOMIC EXCELLENCE**

FINANCIAL REPORT

JUNE 30, 2019

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

JUNE 30, 2019

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SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

REVIEW BOARD

JUNE 30, 2019

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



SmartState[®] Program
Transmittal Letter
Period: Fiscal Year 2018-2019

This transmittal letter provides an overview of the SmartState program and data covering the fiscal year ended June 30, 2019. 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 & Jenkins) in accordance with S.C. Code of Laws, as amended, Section 2-75-10.

Overview of the SmartState Program

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

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

¹ The General Assembly appropriated \$30 million per year in the state budget for fiscal years 2003 through 2008. The General Assembly has appropriated no new funds for fiscal years 2009 through 2019.

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

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

Once a new Center is approved, an institution has 19 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 117.139², 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.

2018 - 19 SmartState Summary Information

At the end of FY 2018-19, 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 million³ in SmartState awards granted by the Board through the end of FY 2018-19, \$197.6 million in matching pledges have been committed by non-state sources. Of the committed pledges through FY 2018-19, \$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 2018-19.

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 – 2018-19)**

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

¹Revised to three chairs by act of the SmartState Review Board on January 12, 2009.

²Revised to two chairs by act of the SmartState Review Board on February 9, 2015.

³Revised to two chairs by act of the SmartState Review Board on February 23, 2010.

⁴The 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.

⁵Increased from one to two endowed chairs by act of the SmartState Review Board on September 8, 2008.

⁶Revised 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

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⁷On 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.

⁸The state award total for this Center was revised from \$5 million to \$2 million by the SmartState Review Board on June 11, 2012.

⁹The 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

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

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

¹²The 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 Totals¹	
TOTAL LOTTERY APPROPRIATIONS (2003-2008)	\$180 million
ACCRUED PROGRAM INTEREST USED FOR ADDITIONAL AWARDS * * As permitted by S.C. 2-75-30(A).	\$17.6 million
TOTAL FUNDS AWARDED (2003-2013)	\$197.6 million

Research Institution Totals				
Institution	Centers Awarded	Chairs Created	Chairs Appointed (Remaining to be Appointed)	State Funds Drawn
Clemson University	13	16	15 (1)	\$43,000,000
University of South Carolina	18	28	25 (3)	\$66,650,000
Medical University of South Carolina	20	41	34 (7)	\$88,100,000
TOTALS	51	85	74 (11)	\$197.6 million

¹Program totals are as of fiscal year end June 30, 2019. 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 2019. 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, 2019, and the related notes to 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 an opinion 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 opinion.

Opinion

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, 2019, 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 is not intended to be a complete presentation of the South Carolina Centers of Economic Excellence's financial position. Our opinion is not modified with respect to this matter.

Other Matters

Other Information

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

The supplementary information, as listed in the table of contents, 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 introductory section 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.

Mauldin & Jenkins, LLC

Columbia, South Carolina
November 18, 2019

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
STATEMENT OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES - CONSOLIDATED SUMMARY
YEAR ENDED JUNE 30, 2019

	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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,793	\$ 3,770	\$ 13,563
Other contribution revenue	(1,011)	233,120	-	5,544	237,653	-	-	-	-	-
Total contribution revenue	(1,011)	233,120	-	5,544	237,653	-	-	9,793	3,770	13,563
Investment Income										
Realized gain	-	-	-	1,770,986	1,770,986	-	-	-	3,794,652	3,794,652
Unrealized gain (loss)	-	-	-	4,235,483	4,235,483	-	-	-	(1,481,881)	(1,481,881)
Endowment income	-	-	-	320,942	320,942	-	-	-	1,426,123	1,426,123
Total investment income	-	-	-	6,327,411	6,327,411	-	-	-	3,738,894	3,738,894
Total revenue	(1,011)	233,120	-	6,332,955	6,565,064	-	-	9,793	3,742,664	3,752,457
Expenditures										
Personal services	-	-	-	2,355,160	2,355,160	-	-	-	2,997,950	2,997,950
Fringe	-	-	-	710,627	710,627	-	-	-	1,126,220	1,126,220
Travel	-	-	-	243,275	243,275	-	-	701	97,285	97,986
Subrecipients	-	-	-	-	-	-	-	-	6,285	6,285
Supplies	-	-	-	225,393	225,393	-	-	-	543,648	543,648
Contractual	-	-	-	-	-	-	-	3,360	17,944	21,304
Tuition assistance	-	-	-	66,546	66,546	-	-	-	-	-
Fixed charges	-	-	-	5,149	5,149	-	-	-	19,174	19,174
Administrative fees	-	-	-	-	-	-	-	490	1,424,976	1,425,466
Other	-	-	-	-	-	-	-	1,637	156,747	158,384
Facilities	-	-	-	136,104	136,104	-	-	-	-	-
Professional & other fees	-	-	-	259,435	259,435	-	-	-	57,121	57,121
Equipment	-	-	-	383,194	383,194	-	-	-	174,969	174,969
Total expenditures	-	-	-	4,384,883	4,384,883	-	-	6,188	6,622,319	6,628,507
Excess (deficiency) of revenues over (under) expenditures	(1,011)	233,120	-	1,948,072	2,180,181	-	-	3,605	(2,879,655)	(2,876,050)
Transfers	-	-	-	163,990	163,990	-	-	(6,182,000)	5,851,551	(330,449)
Net Change in Fund Balances	(1,011)	233,120	-	2,112,062	2,344,171	-	-	(6,178,395)	2,971,896	(3,206,499)
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note-5)	-	2,000,000	-	1,037,034	3,037,034	-	(2,000,000)	-	(2,569,694)	(4,569,694)
Prior Period Adjustment (Note-6)	-	-	-	468,213	468,213	-	-	-	1,868,818	1,868,818
Fund Balance - June 30, 2018, As Restated	43,001,011	37,547,601	155,980	40,996,251	121,700,843	88,099,999	32,996,979	12,106,288	30,327,365	163,530,631
Fund Balance - June 30, 2019	\$ 43,000,000	\$ 37,780,721	\$ 155,980	\$ 43,108,313	\$ 124,045,014	\$ 88,099,999	\$ 32,996,979	\$ 5,927,893	\$ 33,299,261	\$ 160,324,132

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, 2019

	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	\$ -	\$ 5,180	\$ 16,000	\$ 25,000	\$ 46,180	\$ -	\$ 5,180	\$ 25,793	\$ 28,770	\$ 59,743
Other contribution revenue	-	20,000	1,416	639,163	660,579	(1,011)	253,120	1,416	644,707	898,232
Total contribution revenue	<u>-</u>	<u>25,180</u>	<u>17,416</u>	<u>664,163</u>	<u>706,759</u>	<u>(1,011)</u>	<u>258,300</u>	<u>27,209</u>	<u>673,477</u>	<u>957,975</u>
Investment Income										
Realized gain	-	-	-	1,361,787	1,361,787	-	-	-	6,927,425	6,927,425
Unrealized gain (loss)	-	-	-	1,634,183	1,634,183	-	-	-	4,387,785	4,387,785
Endowment income	-	-	10,127	590,799	600,926	-	-	10,127	2,337,864	2,347,991
Total investment income	<u>-</u>	<u>-</u>	<u>10,127</u>	<u>3,586,769</u>	<u>3,596,896</u>	<u>-</u>	<u>-</u>	<u>10,127</u>	<u>13,653,074</u>	<u>13,663,201</u>
Total revenue	<u>-</u>	<u>25,180</u>	<u>27,543</u>	<u>4,250,932</u>	<u>4,303,655</u>	<u>(1,011)</u>	<u>258,300</u>	<u>37,336</u>	<u>14,326,551</u>	<u>14,621,176</u>
Expenditures										
Personal services	-	-	174,844	2,597,625	2,772,469	-	-	174,844	7,950,735	8,125,579
Fringe	-	-	47,119	499,777	546,896	-	-	47,119	2,336,624	2,383,743
Travel	-	-	6,931	295,499	302,430	-	-	7,632	636,059	643,691
Subrecipients	-	-	-	-	-	-	-	-	6,285	6,285
Supplies	-	-	8,199	428,962	437,161	-	-	8,199	1,198,003	1,206,202
Contractual	-	-	-	-	-	-	-	3,360	17,944	21,304
Tuition assistance	-	-	6,400	146,677	153,077	-	-	6,400	213,223	219,623
Fixed charges	-	-	-	-	-	-	-	-	24,323	24,323
Administrative fees	-	-	-	405,869	405,869	-	-	490	1,830,845	1,831,335
Other	-	-	215,551	581,802	797,353	-	-	217,188	738,549	955,737
Facilities	-	-	-	-	-	-	-	-	136,104	136,104
Professional & other fees	-	-	-	-	-	-	-	-	316,556	316,556
Equipment	-	-	12,384	66,307	78,691	-	-	12,384	624,470	636,854
Total expenditures	<u>-</u>	<u>-</u>	<u>471,428</u>	<u>5,022,518</u>	<u>5,493,946</u>	<u>-</u>	<u>-</u>	<u>477,616</u>	<u>16,029,720</u>	<u>16,507,336</u>
Excess (deficiency) of revenues over (under) expenditures	-	25,180	(443,885)	(771,586)	(1,190,291)	(1,011)	258,300	(440,280)	(1,703,169)	(1,886,160)
Transfers	-	-	-	166,459	166,459	-	-	(6,182,000)	6,182,000	-
Net Change in Fund Balances	<u>-</u>	<u>25,180</u>	<u>(443,885)</u>	<u>(605,127)</u>	<u>(1,023,832)</u>	<u>(1,011)</u>	<u>258,300</u>	<u>(6,622,280)</u>	<u>4,478,831</u>	<u>(1,886,160)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note-5)	-	-	-	1,532,660	1,532,660	-	-	-	-	-
Prior Period Adjustment (Note-6)	-	(260,000)	7,750	(34,658)	(286,908)	-	(260,000)	7,750	2,302,373	2,050,123
Fund Balance - June 30, 2018, As Restated	<u>66,500,000</u>	<u>29,552,279</u>	<u>1,604,955</u>	<u>15,847,450</u>	<u>113,504,684</u>	<u>197,601,010</u>	<u>100,096,859</u>	<u>13,867,223</u>	<u>87,171,066</u>	<u>398,736,158</u>
Fund Balance - June 30, 2019	<u>\$ 66,500,000</u>	<u>\$ 29,577,459</u>	<u>\$ 1,161,070</u>	<u>\$ 15,242,323</u>	<u>\$ 112,480,852</u>	<u>\$ 197,599,999</u>	<u>\$ 100,355,159</u>	<u>\$ 7,244,943</u>	<u>\$ 91,649,897</u>	<u>\$ 396,849,998</u>

See notes to financial statements.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

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 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.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

NOTE 1. DESCRIPTION OF PROGRAM (CONTINUED)

In 2010, the General Assembly amended the 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 *current 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.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

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 SmartState 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.

Transfers:

As discussed in further detail in Note 5, one (1) of the participating institutions is designated as the fiscal agent for each research center. However, program activities may occur at more than one (1) of the participating institutions and therefore, transfers of resources to fund program activities are reported from the fiscal agent to the participating institution(s). These transfers will net to zero across all three (3) SmartState research institutions in the consolidated summary.

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, 2019, fund balance consisted of cash and investments maintained by the research institutions for program purposes and was as follows:

Clemson University	\$ 124,045,014
Medical University of South Carolina	160,324,132
University of South Carolina	<u>112,480,852</u>
Total	<u>\$ 396,849,998</u>

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

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, 2019:

<u>Institution</u>	<u>Proposal</u>	<u>Federal Grants Used as Non-State Matching Funds</u>	
		<u>Total Qualifying as Non-State Match</u>	<u>Amount Used as Non-State Match</u>
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

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

NOTE 5. RECLASSIFICATION IN REPORTING ENTITY

At the inception of the SmartState Program, senior research institutions included under this program (Clemson University, the Medical University of South Carolina, and the University of South Carolina) had opportunities to submit collaborative proposals with each other. Specific partnering activities with other research universities and higher education institutions, with businesses, or with the community were strongly encouraged.

However, for each proposal, one of the three senior research universities must serve as the singular fiscal agent for the proposal and award. As a result, a number of collaborative centers were created, with the senior research institution designated as fiscal agent serving as the only institution authorized to draw or manage the transfer of state funds.

Through June 30, 2018, the fiscal agent institution was reporting all activity of a collaborative center, including the activity of all collaborative institutions, under the particular center or program.

During the fiscal year ended June 30, 2019, in order to improve the reporting for the SmartState Program, management decided that each institution should report their portion of activity for the collaborative centers under its name. As a result, certain reclassifications have been made to the beginning fund balances as of June 30, 2018, to clarify presentation of these collaborative centers. Such reclassification had no impact on the overall fund balances of SmartState Program. A summary of the reclassification is shown below:

<u>Fund Balances of Collaborative Centers</u>	<u>As Previously Reported</u>	<u>Reclassification</u>	<u>As Reclassified</u>
Clemson	<u>\$ -</u>	<u>\$ 3,037,034</u>	<u>\$ 3,037,034</u>
MUSC	<u>4,569,694</u>	<u>(4,569,694)</u>	<u>-</u>
USC	<u>-</u>	<u>1,532,660</u>	<u>1,532,660</u>
Total	<u>4,569,694</u>	<u>-</u>	<u>4,569,694</u>

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

NOTE 6. RESTATEMENT OF PRIOR PERIOD FUND BALANCES

Management became aware in 2019 that at June 30, 2018, the consolidated fund balances were stated incorrectly. The details of this restatement, by institution, are as follows:

The University of South Carolina:

At June 30, 2018, the fund balances for the Tourism and Economic Development Center were overstated by \$341,768 due to an error of applying more than match for one endowment. Additionally, the fund balances for the Cancer Drug Discovery Center and the Prostate Cancer Disparities Center were understated by \$47,110 and \$7,750, respectively. These adjustments were required to report the effects of prior year activities that were not reflected in the financial statements in prior years. For each of these centers, MUSC is the fiscal agent and the amounts related to prior years were improperly omitted entirely from the SmartState Program financial statements. As a result of the change in policy discussed in Note 5, this restatement was made in the Program Centers for the University of South Carolina and not the Medical University of South Carolina.

The Medical University of South Carolina:

The fund balances for the following centers were understated by the amounts included in parentheses after each center: Health Facilities Design and Testing (\$289,624); Brain Imaging (\$259,016); Childhood Neurotherapeutics (\$472,884); Healthcare Quality (\$188,426); and Healthful Lifestyles (\$658,868). These adjustments were required to report the effects of prior year activities that were not reflected in the financial statements in prior years. For each of these centers, Clemson or the University of South Carolina are the fiscal agent and the amounts related to prior years were improperly omitted entirely from the SmartState Program financial statements. As a result of the change in policy discussed in Note 5, this restatement was made in the Program Centers for the Medical University of South Carolina and not Clemson University or the University of South Carolina.

Clemson University:

The fund balances for Senior Smart were understated by \$468,213. This adjustment was required to report the effects of prior year activities that were not reflected in the financial statements in prior years. For this center, the University of South Carolina is the fiscal agent and the amount related to prior years was improperly omitted entirely from the SmartState Program financial statements. As a result of the change in policy discussed in Note 5, this restatement was made in the Program Centers for Clemson University and not the University of South Carolina.

SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE

NOTES TO FINANCIAL STATEMENTS YEAR END JUNE 30, 2019

NOTE 6. RESTATEMENT OF PRIOR PERIOD FUND BALANCES (CONTINUED)

As result, the consolidated cumulative fund balances for the year ended June 30, 2018, were restated. A summary of the understatement is shown below:

<u>Fund Balances</u>	<u>As Previously Reported</u>	<u>Reclassification (Note 5)</u>	<u>Correction of Error</u>	<u>As Restated</u>
Clemson	<u>\$ 118,195,596</u>	<u>\$ 3,037,034</u>	<u>\$ 468,213</u>	<u>\$ 121,700,843</u>
MUSC	<u>\$ 166,231,507</u>	<u>\$ (4,569,694)</u>	<u>\$ 1,868,818</u>	<u>\$ 163,530,631</u>
USC	<u>\$ 112,258,932</u>	<u>\$ 1,532,660</u>	<u>\$ (286,908)</u>	<u>\$ 113,504,684</u>
Total	<u>\$ 396,686,035</u>	<u>\$ -</u>	<u>\$ 2,050,123</u>	<u>\$ 398,736,158</u>

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2019**

	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										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	172,927	172,927	-	-	-	226,415	226,415
Unrealized gain (loss)	-	-	-	412,572	412,572	-	-	-	526,395	526,395
Endowment income	-	-	-	20,291	20,291	-	-	-	24,052	24,052
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>605,790</u>	<u>605,790</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>776,862</u>	<u>776,862</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>605,790</u>	<u>605,790</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>776,862</u>	<u>776,862</u>
Expenditures										
Personal services	-	-	-	269,031	269,031	-	-	-	384,960	384,960
Fringe	-	-	-	75,492	75,492	-	-	-	120,529	120,529
Travel	-	-	-	20,663	20,663	-	-	-	18,905	18,905
Supplies	-	-	-	14,664	14,664	-	-	-	15,613	15,613
Tuition assistance	-	-	-	13,942	13,942	-	-	-	1,815	1,815
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	34,834	34,834	-	-	-	37,378	37,378
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	17,358	17,358	-	-	-	211,225	211,225
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>445,984</u>	<u>445,984</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>790,425</u>	<u>790,425</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	159,806	159,806	-	-	-	(13,563)	(13,563)
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>159,806</u>	<u>159,806</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(13,563)</u>	<u>(13,563)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	2,845,991	-	3,844,083	11,690,074	5,000,000	5,000,000	-	4,983,510	14,983,510
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	5,000,000	2,845,991	-	3,844,083	11,690,074	5,000,000	5,000,000	-	4,983,510	14,983,510
Fund Balance - June 30, 2019	<u>\$ 5,000,000</u>	<u>\$ 2,845,991</u>	<u>\$ -</u>	<u>\$ 4,003,889</u>	<u>\$ 11,849,880</u>	<u>\$ 5,000,000</u>	<u>\$ 5,000,000</u>	<u>\$ -</u>	<u>\$ 4,969,947</u>	<u>\$ 14,969,947</u>

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2019**

	Automotive Systems Integration				Optical Materials					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	243,479	243,479	-	-	-	171,433	171,433
Unrealized gain (loss)	-	-	-	565,411	565,411	-	-	-	414,218	414,218
Endowment income	-	-	-	25,752	25,752	-	-	-	20,684	20,684
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>834,642</u>	<u>834,642</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>606,335</u>	<u>606,335</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>834,642</u>	<u>834,642</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>606,335</u>	<u>606,335</u>
Expenditures										
Personal services	-	-	-	315,321	315,321	-	-	-	203,690	203,690
Fringe	-	-	-	86,611	86,611	-	-	-	71,540	71,540
Travel	-	-	-	18,722	18,722	-	-	-	18,231	18,231
Supplies	-	-	-	5,111	5,111	-	-	-	12,031	12,031
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Freight	-	-	-	-	-	-	-	-	5,149	5,149
Other	-	-	-	9,799	9,799	-	-	-	76,645	76,645
Facilities	-	-	-	136,104	136,104	-	-	-	-	-
Equipment	-	-	-	34,796	34,796	-	-	-	7,282	7,282
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>606,464</u>	<u>606,464</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>394,568</u>	<u>394,568</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	228,178	228,178	-	-	-	211,767	211,767
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>228,178</u>	<u>228,178</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>211,767</u>	<u>211,767</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>5,000,000</u>	<u>5,000,000</u>	<u>114,921</u>	<u>6,112,023</u>	<u>16,226,944</u>	<u>5,000,000</u>	<u>3,050,852</u>	<u>10,883</u>	<u>4,054,064</u>	<u>12,115,799</u>
Fund Balance - June 30, 2019	<u>\$ 5,000,000</u>	<u>\$ 5,000,000</u>	<u>\$ 114,921</u>	<u>\$ 6,340,201</u>	<u>\$ 16,455,122</u>	<u>\$ 5,000,000</u>	<u>\$ 3,050,852</u>	<u>\$ 10,883</u>	<u>\$ 4,265,831</u>	<u>\$ 12,327,566</u>

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2019**

	Vehicle Electronic Systems				Supply Chain Optimization and Logistics					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	(1,011)	3,011	-	-	2,000
Total contribution revenue	-	-	-	-	-	(1,011)	3,011	-	-	2,000
Investment Income										
Realized gain (loss)	-	-	-	60,595	60,595	-	-	-	90,907	90,907
Unrealized gain (loss)	-	-	-	205,414	205,414	-	-	-	211,045	211,045
Endowment income	-	-	-	121,404	121,404	-	-	-	9,795	9,795
Total investment income (loss)	-	-	-	387,413	387,413	-	-	-	311,747	311,747
Total revenue	-	-	-	387,413	387,413	(1,011)	3,011	-	311,747	313,747
Expenditures										
Personal services	-	-	-	229,034	229,034	-	-	-	116,506	116,506
Fringe	-	-	-	79,052	79,052	-	-	-	32,763	32,763
Travel	-	-	-	17,020	17,020	-	-	-	15,925	15,925
Supplies	-	-	-	1,190	1,190	-	-	-	3,128	3,128
Tuition assistance	-	-	-	5,604	5,604	-	-	-	13,388	13,388
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	(3,601)	(3,601)	-	-	-	7,241	7,241
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	8,830	8,830	-	-	-	4,228	4,228
Total expenses	-	-	-	337,129	337,129	-	-	-	193,179	193,179
Excess (deficiency) of revenues over (under) expenditures	-	-	-	50,284	50,284	(1,011)	3,011	-	118,568	120,568
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	-	-	-	50,284	50,284	(1,011)	3,011	-	118,568	120,568
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	2,000,000	-	2,237,059	7,237,059	2,001,011	2,000,000	-	1,576,377	5,577,388
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	3,000,000	2,000,000	-	2,237,059	7,237,059	2,001,011	2,000,000	-	1,576,377	5,577,388
Fund Balance - June 30, 2019	\$ 3,000,000	\$ 2,000,000	\$ -	\$ 2,287,343	\$ 7,287,343	\$ 2,000,000	\$ 2,003,011	\$ -	\$ 1,694,945	\$ 5,697,956

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YEAR ENDED JUNE 30, 2019**

	Urban Ecology and Restoration				Advanced Fiber-Based Materials					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	230,109	-	-	230,109	-	-	-	5,544	5,544
Total contribution revenue	<u>-</u>	<u>230,109</u>	<u>-</u>	<u>-</u>	<u>230,109</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,544</u>	<u>5,544</u>
Investment Income										
Realized gain (loss)	-	-	-	92,720	92,720	-	-	-	166,942	166,942
Unrealized gain (loss)	-	-	-	214,820	214,820	-	-	-	391,247	391,247
Endowment income	-	-	-	10,039	10,039	-	-	-	18,450	18,450
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>317,579</u>	<u>317,579</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>576,639</u>	<u>576,639</u>
Total revenue	<u>-</u>	<u>230,109</u>	<u>-</u>	<u>317,579</u>	<u>547,688</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>582,183</u>	<u>582,183</u>
Expenditures										
Personal services	-	-	-	190,992	190,992	-	-	-	174,739	174,739
Fringe	-	-	-	50,927	50,927	-	-	-	56,652	56,652
Travel	-	-	-	15,557	15,557	-	-	-	28,156	28,156
Supplies	-	-	-	28,112	28,112	-	-	-	31,410	31,410
Tuition assistance	-	-	-	8,294	8,294	-	-	-	7,209	7,209
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	11,209	11,209	-	-	-	32,643	32,643
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	158	158	-	-	-	10,080	10,080
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>305,249</u>	<u>305,249</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>340,889</u>	<u>340,889</u>
Excess (deficiency) of revenues over (under) expenditures	-	230,109	-	12,330	242,439	-	-	-	241,294	241,294
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>230,109</u>	<u>-</u>	<u>12,330</u>	<u>242,439</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>241,294</u>	<u>241,294</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	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
Fund Balance - June 30, 2019	<u>\$ 2,000,000</u>	<u>\$ 2,230,109</u>	<u>\$ -</u>	<u>\$ 1,957,516</u>	<u>\$ 6,187,625</u>	<u>\$ 4,000,000</u>	<u>\$ 3,482,500</u>	<u>\$ 30,176</u>	<u>\$ 4,136,792</u>	<u>\$ 11,649,468</u>

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	Health Facilities Design and Testing*					Optoelectronics				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	84,614	84,614	-	-	-	92,898	92,898
Unrealized gain (loss)	-	-	-	225,379	225,379	-	-	-	214,787	214,787
Endowment income	-	-	-	13,510	13,510	-	-	-	9,793	9,793
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>323,503</u>	<u>323,503</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>317,478</u>	<u>317,478</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>323,503</u>	<u>323,503</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>317,478</u>	<u>317,478</u>
Expenditures										
Personal services	-	-	-	8,092	8,092	-	-	-	72,766	72,766
Fringe	-	-	-	1,743	1,743	-	-	-	20,449	20,449
Travel	-	-	-	4,999	4,999	-	-	-	10,232	10,232
Supplies	-	-	-	233	233	-	-	-	67,332	67,332
Tuition assistance	-	-	-	-	-	-	-	-	8,294	8,294
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	2,593	2,593	-	-	-	30,654	30,654
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	3,430	3,430	-	-	-	42,916	42,916
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>21,090</u>	<u>21,090</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>252,643</u>	<u>252,643</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	302,413	302,413	-	-	-	64,835	64,835
Transfers	-	-	-	(108,294)	(108,294)	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>194,119</u>	<u>194,119</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>64,835</u>	<u>64,835</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	2,000,000	-	2,402,563	6,402,563	2,000,000	2,006,799	-	1,748,294	5,755,093
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	2,000,000	2,000,000	-	2,402,563	6,402,563	2,000,000	2,006,799	-	1,748,294	5,755,093
Fund Balance - June 30, 2019	<u>\$ 2,000,000</u>	<u>\$ 2,000,000</u>	<u>\$ -</u>	<u>\$ 2,596,682</u>	<u>\$ 6,596,682</u>	<u>\$ 2,000,000</u>	<u>\$ 2,006,799</u>	<u>\$ -</u>	<u>\$ 1,813,129</u>	<u>\$ 5,819,928</u>

* Collaborative Center

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	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										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	71,674	71,674	-	-	-	158,030	158,030
Unrealized gain (loss)	-	-	-	170,814	170,814	-	-	-	373,882	373,882
Endowment income	-	-	-	10,761	10,761	-	-	-	18,143	18,143
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>253,249</u>	<u>253,249</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>550,055</u>	<u>550,055</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>253,249</u>	<u>253,249</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>550,055</u>	<u>550,055</u>
Expenditures										
Personal services	-	-	-	8,921	8,921	-	-	-	135,865	135,865
Fringe	-	-	-	2,951	2,951	-	-	-	47,076	47,076
Travel	-	-	-	2,455	2,455	-	-	-	57,318	57,318
Supplies	-	-	-	-	-	-	-	-	7,366	7,366
Tuition assistance	-	-	-	-	-	-	-	-	8,000	8,000
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	35	35	-	-	-	12,113	12,113
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	3,214	3,214
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>14,362</u>	<u>14,362</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>270,952</u>	<u>270,952</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	238,887	238,887	-	-	-	279,103	279,103
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>238,887</u>	<u>238,887</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>279,103</u>	<u>279,103</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	1,150,001	-	1,754,974	4,904,975	4,000,000	3,011,458	-	3,754,704	10,766,162
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>2,000,000</u>	<u>1,150,001</u>	<u>-</u>	<u>1,754,974</u>	<u>4,904,975</u>	<u>4,000,000</u>	<u>3,011,458</u>	<u>-</u>	<u>3,754,704</u>	<u>10,766,162</u>
Fund Balance - June 30, 2019	<u>\$ 2,000,000</u>	<u>\$ 1,150,001</u>	<u>\$ -</u>	<u>\$ 1,993,861</u>	<u>\$ 5,143,862</u>	<u>\$ 4,000,000</u>	<u>\$ 3,011,458</u>	<u>\$ -</u>	<u>\$ 4,033,807</u>	<u>\$ 11,045,265</u>

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	Duke Energy Smart Grid					Senior Smart *				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	84,758	84,758	-	-	-	-	-
Unrealized gain (loss)	-	-	-	197,817	197,817	-	-	-	-	-
Endowment income	-	-	-	14,568	14,568	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>297,143</u>	<u>297,143</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>297,143</u>	<u>297,143</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	-	-	-	-	-	50,000	50,000
Fringe	-	-	-	-	-	-	-	-	15,956	15,956
Travel	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	3,908	3,908	-	-	-	-	-
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,908</u>	<u>3,908</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>65,956</u>	<u>65,956</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	293,235	293,235	-	-	-	(65,956)	(65,956)
Transfers	-	-	-	-	-	-	-	-	127,014	127,014
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>293,235</u>	<u>293,235</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>61,058</u>	<u>61,058</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	2,000,000	-	1,182,669	5,182,669	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	468,213	468,213
Fund Balance - June 30, 2018 As Restated	<u>2,000,000</u>	<u>2,000,000</u>	<u>-</u>	<u>1,182,669</u>	<u>5,182,669</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>468,213</u>	<u>468,213</u>
Fund Balance - June 30, 2019	<u>\$ 2,000,000</u>	<u>\$ 2,000,000</u>	<u>\$ -</u>	<u>\$ 1,475,904</u>	<u>\$ 5,475,904</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 529,271</u>	<u>\$ 529,271</u>

* Collaborative Center-USC Fiscal Agent

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	Advanced Tissue Biofabrication*					Regenerative Medicine *				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	53,594	53,594
Unrealized gain (loss)	-	-	-	-	-	-	-	-	111,682	111,682
Endowment income	-	-	-	-	-	-	-	-	3,700	3,700
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>168,976</u>	<u>168,976</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>168,976</u>	<u>168,976</u>
Expenditures										
Personal services	-	-	-	91,280	91,280	-	-	-	103,963	103,963
Fringe	-	-	-	19,749	19,749	-	-	-	29,137	29,137
Travel	-	-	-	8,412	8,412	-	-	-	6,680	6,680
Supplies	-	-	-	32,765	32,765	-	-	-	6,438	6,438
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Freight	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	1,178	1,178	-	-	-	2,806	2,806
Facilities	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	39,677	39,677	-	-	-	-	-
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>193,061</u>	<u>193,061</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>149,024</u>	<u>149,024</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(193,061)	(193,061)	-	-	-	19,952	19,952
Transfers	-	-	-	64,510	64,510	-	-	-	80,760	80,760
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(128,551)</u>	<u>(128,551)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>100,712</u>	<u>100,712</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	198,079	198,079	-	2,000,000	-	838,955	2,838,955
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>-</u>	<u>-</u>	<u>-</u>	<u>198,079</u>	<u>198,079</u>	<u>-</u>	<u>2,000,000</u>	<u>-</u>	<u>838,955</u>	<u>2,838,955</u>
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 69,528</u>	<u>\$ 69,528</u>	<u>\$ -</u>	<u>\$ 2,000,000</u>	<u>\$ -</u>	<u>\$ 939,667</u>	<u>\$ 2,939,667</u>

* Collaborative Center-MUSC Fiscal Agent

* Collaborative Center-MUSC Fiscal Agent

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
CLEMSON UNIVERSITY
SCHEDULE OF PROGRAM REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 2019**

	Total - Clemson University				Total
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	
Contribution Revenue					
State funds	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	(1,011)	233,120	-	5,544	237,653
Total contribution revenue	<u>(1,011)</u>	<u>233,120</u>	<u>-</u>	<u>5,544</u>	<u>237,653</u>
Investment Income					
Realized gain (loss)	-	-	-	1,770,986	1,770,986
Unrealized gain (loss)	-	-	-	4,235,483	4,235,483
Endowment income	-	-	-	320,942	320,942
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>6,327,411</u>	<u>6,327,411</u>
Total revenue	<u>(1,011)</u>	<u>233,120</u>	<u>-</u>	<u>6,332,955</u>	<u>6,565,064</u>
Expenditures					
Personal services	-	-	-	2,355,160	2,355,160
Fringe	-	-	-	710,627	710,627
Travel	-	-	-	243,275	243,275
Supplies	-	-	-	225,393	225,393
Tuition assistance	-	-	-	66,546	66,546
Freight	-	-	-	5,149	5,149
Other	-	-	-	259,435	259,435
Facilities	-	-	-	136,104	136,104
Equipment	-	-	-	383,194	383,194
Total expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>4,384,883</u>	<u>4,384,883</u>
Excess (deficiency) of revenues over (under) expenditures	(1,011)	233,120	-	1,948,072	2,180,181
Transfers	-	-	-	163,990	163,990
Net Change in Fund Balances	<u>(1,011)</u>	<u>233,120</u>	<u>-</u>	<u>2,112,062</u>	<u>2,344,171</u>
Cumulative Program Fund Balances					
Beginning Fund Balances as Previously Reported	43,001,011	35,547,601	155,980	39,491,004	118,195,596
Reclassification in Reporting Entity (Note 5)	-	2,000,000	-	1,037,034	3,037,034
Prior Period Adjustment (Note 6)	-	-	-	468,213	468,213
Fund Balance - June 30, 2018 As Restated	<u>43,001,011</u>	<u>37,547,601</u>	<u>155,980</u>	<u>40,996,251</u>	<u>121,700,843</u>
Fund Balance - June 30, 2019	<u>\$ 43,000,000</u>	<u>\$ 37,780,721</u>	<u>\$ 155,980</u>	<u>\$ 43,108,313</u>	<u>\$ 124,045,014</u>

**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, 2019**

	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										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	570	-	-	570
Total contribution revenue	-	-	-	-	-	-	570	-	-	570
Investment Income										
Realized gain (loss)	-	-	-	165,988	165,988	-	-	-	128,293	128,293
Unrealized gain (loss)	-	-	-	(75,982)	(75,982)	-	-	-	(58,169)	(58,169)
Endowment income	-	-	-	62,545	62,545	-	-	-	48,352	48,352
Total investment income (loss)	-	-	-	152,551	152,551	-	-	-	118,476	118,476
Total revenue	-	-	-	152,551	152,551	-	-	570	118,476	119,046
Expenditures										
Personal services	-	-	-	173,669	173,669	-	-	-	152,825	152,825
Fringe	-	-	-	52,070	52,070	-	-	-	58,685	58,685
Travel	-	-	-	42,764	42,764	-	-	701	678	1,379
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	48,003	48,003	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	61,737	61,737	-	-	29	47,752	47,781
Other	-	-	-	15,435	15,435	-	-	1,200	-	1,200
Fixed Charges	-	-	-	-	-	-	-	-	-	-
Professional & Other Fees	-	-	-	12,003	12,003	-	-	-	-	-
Equipment	-	-	-	95,513	95,513	-	-	-	-	-
Total expenditures	-	-	-	501,194	501,194	-	-	1,930	259,940	261,870
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(348,643)	(348,643)	-	-	(1,360)	(141,464)	(142,824)
Transfers	-	-	(467,645)	467,645	-	-	(102,899)	102,899	-	-
Net Change in Fund Balances	-	-	(467,645)	119,002	(348,643)	-	-	(104,259)	(38,565)	(142,824)
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	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
Fund Balance - June 30, 2019	\$ 4,000,000	\$ 1,254,266	\$ 192,453	\$ 1,005,610	\$ 6,452,329	\$ 3,000,000	\$ 900,350	\$ 666,570	\$ 1,279,280	\$ 5,846,200

**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, 2019**

	Marine Genomics				Regenerative Medicine*					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	655	-	655
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>655</u>	<u>655</u>	<u>655</u>
Investment Income										
Realized gain (loss)	-	-	-	117,017	117,017	-	-	-	164,191	164,191
Unrealized gain (loss)	-	-	-	155,050	155,050	-	-	-	(69,470)	(69,470)
Endowment income	-	-	-	44,088	44,088	-	-	-	61,849	61,849
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>316,155</u>	<u>316,155</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>156,570</u>	<u>156,570</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>316,155</u>	<u>316,155</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>157,225</u>	<u>157,225</u>
Expenditures										
Personal services	-	-	-	54,282	54,282	-	-	-	-	-
Fringe	-	-	-	20,872	20,872	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-	-	-
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	75,622	75,622	-	-	-	60,763	60,763
Other	-	-	-	110,260	110,260	-	-	-	-	-
Fixed Charges	-	-	-	-	-	-	-	-	925	925
Professional & Other Fees	-	-	-	-	-	-	-	-	4,499	4,499
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>261,036</u>	<u>261,036</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>66,187</u>	<u>66,187</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	55,119	55,119	-	-	-	91,038	91,038
Transfers	-	-	(89,970)	89,970	-	-	-	239,884	(401,404)	(161,520)
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>(89,970)</u>	<u>145,089</u>	<u>55,119</u>	<u>-</u>	<u>-</u>	<u>239,884</u>	<u>(310,366)</u>	<u>(70,482)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	(2,000,000)	-	(912,005)	(2,912,005)
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	1,500,000	4,000,000	89,970	1,701,004	7,290,974	5,000,000	-	(239,884)	1,449,469	6,209,585
Fund Balance - June 30, 2019	<u>\$ 1,500,000</u>	<u>\$ 4,000,000</u>	<u>\$ -</u>	<u>\$ 1,846,093</u>	<u>\$ 7,346,093</u>	<u>\$ 5,000,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,139,103</u>	<u>\$ 6,139,103</u>

* Collaborative Center

**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, 2019**

	Translational Cancer Therapeutics*					Drug Discovery in Cancer*				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	222,241	222,241	-	-	-	205,384	205,384
Unrealized gain (loss)	-	-	-	(96,826)	(96,826)	-	-	-	(91,129)	(91,129)
Endowment income	-	-	-	83,699	83,699	-	-	-	77,399	77,399
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>209,114</u>	<u>209,114</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>191,654</u>	<u>191,654</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>209,114</u>	<u>209,114</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>191,654</u>	<u>191,654</u>
Expenditures										
Personal services	-	-	-	131,215	131,215	-	-	-	123,529	123,529
Fringe	-	-	-	50,387	50,387	-	-	-	46,328	46,328
Travel	-	-	-	1,175	1,175	-	-	-	2,684	2,684
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	54,790	54,790
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	58,247	58,247	-	-	-	76,345	76,345
Other	-	-	-	-	-	-	-	-	16,617	16,617
Fixed Charges	-	-	-	60	60	-	-	-	1,005	1,005
Professional & Other Fees	-	-	-	410	410	-	-	-	1,945	1,945
Equipment	-	-	-	24,174	24,174	-	-	-	36,007	36,007
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>265,668</u>	<u>265,668</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>359,250</u>	<u>359,250</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(56,554)	(56,554)	-	-	-	(167,596)	(167,596)
Transfers	-	-	-	(119,131)	(119,131)	-	-	-	(61,087)	(61,087)
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(175,685)</u>	<u>(175,685)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(228,683)</u>	<u>(228,683)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	5,000,000	1,998,095	-	1,869,643	8,867,738	5,000,000	1,604,510	-	1,808,406	8,412,916
Reclassification in Reporting Entity (Note 5)	-	-	-	(92,178)	(92,178)	-	-	-	(241,658)	(241,658)
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>5,000,000</u>	<u>1,998,095</u>	<u>-</u>	<u>1,777,465</u>	<u>8,775,560</u>	<u>5,000,000</u>	<u>1,604,510</u>	<u>-</u>	<u>1,566,748</u>	<u>8,171,258</u>
Fund Balance - June 30, 2019	<u>\$ 5,000,000</u>	<u>\$ 1,998,095</u>	<u>\$ -</u>	<u>\$ 1,601,780</u>	<u>\$ 8,599,875</u>	<u>\$ 5,000,000</u>	<u>\$ 1,604,510</u>	<u>\$ -</u>	<u>\$ 1,338,065</u>	<u>\$ 7,942,575</u>

* Collaborative Center

* Collaborative Center

**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, 2019**

	Gastrointestinal Cancer Diagnostics					Vision Science				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	219,508	219,508	-	-	-	206,523	206,523
Unrealized gain (loss)	-	-	-	(98,796)	(98,796)	-	-	-	(89,935)	(89,935)
Endowment income	-	-	-	82,678	82,678	-	-	-	74,159	74,159
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>203,390</u>	<u>203,390</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>190,747</u>	<u>190,747</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>203,390</u>	<u>203,390</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>190,747</u>	<u>190,747</u>
Expenditures										
Personal services	-	-	-	436,704	436,704	-	-	-	73,510	73,510
Fringe	-	-	-	165,760	165,760	-	-	-	27,707	27,707
Travel	-	-	-	2,035	2,035	-	-	-	2,625	2,625
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	34,266	34,266	-	-	-	33,439	33,439
Contractual	-	-	-	310	310	-	-	-	-	-
Management Fees	-	-	-	81,634	81,634	-	-	-	82,719	82,719
Other	-	-	-	-	-	-	-	-	5,955	5,955
Fixed Charges	-	-	-	-	-	-	-	-	-	-
Professional & Other Fees	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>720,709</u>	<u>720,709</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>225,955</u>	<u>225,955</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(517,319)	(517,319)	-	-	-	(35,208)	(35,208)
Transfers	-	-	(141,411)	141,411	-	-	-	(549,553)	549,553	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>(141,411)</u>	<u>(375,908)</u>	<u>(517,319)</u>	<u>-</u>	<u>-</u>	<u>(549,553)</u>	<u>514,345</u>	<u>(35,208)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>5,000,000</u>	<u>2,000,000</u>	<u>619,366</u>	<u>2,147,758</u>	<u>9,767,124</u>	<u>4,500,000</u>	<u>1,883,774</u>	<u>1,003,532</u>	<u>1,894,670</u>	<u>9,281,976</u>
Fund Balance - June 30, 2019	<u>\$ 5,000,000</u>	<u>\$ 2,000,000</u>	<u>\$ 477,955</u>	<u>\$ 1,771,850</u>	<u>\$ 9,249,805</u>	<u>\$ 4,500,000</u>	<u>\$ 1,883,774</u>	<u>\$ 453,979</u>	<u>\$ 2,409,015</u>	<u>\$ 9,246,768</u>

**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, 2019**

	Clinical Effectiveness and Patient Safety*					Molecular Proteomics in Cardiovascular Disease and Prevention				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	220,134	220,134	-	-	-	254,228	254,228
Unrealized gain (loss)	-	-	-	(97,515)	(97,515)	-	-	-	(114,416)	(114,416)
Endowment income	-	-	-	82,958	82,958	-	-	-	95,785	95,785
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>205,577</u>	<u>205,577</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>235,597</u>	<u>235,597</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>205,577</u>	<u>205,577</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>235,597</u>	<u>235,597</u>
Expenditures										
Personal services	-	-	-	178,522	178,522	-	-	-	244,254	244,254
Fringe	-	-	-	66,946	66,946	-	-	-	93,868	93,868
Travel	-	-	-	8,248	8,248	-	-	-	3,670	3,670
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	60	60	-	-	-	55,697	55,697
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	81,818	81,818	-	-	-	94,456	94,456
Other	-	-	-	63	63	-	-	437	-	437
Fixed Charges	-	-	-	-	-	-	-	-	200	200
Professional & Other Fees	-	-	-	4,164	4,164	-	-	-	5,865	5,865
Equipment	-	-	-	4,289	4,289	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>344,110</u>	<u>344,110</u>	<u>-</u>	<u>-</u>	<u>437</u>	<u>498,010</u>	<u>498,447</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(138,533)	(138,533)	-	-	(437)	(262,413)	(262,850)
Transfers	-	-	-	(70,224)	(70,224)	-	-	(1,528)	1,528	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(208,757)</u>	<u>(208,757)</u>	<u>-</u>	<u>-</u>	<u>(1,965)</u>	<u>(260,885)</u>	<u>(262,850)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	(282,775)	(282,775)	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	5,000,000	2,000,000	-	1,504,511	8,504,511	5,000,000	3,518,805	1,197,319	1,516,921	11,233,045
Fund Balance - June 30, 2019	<u>\$ 5,000,000</u>	<u>\$ 2,000,000</u>	<u>\$ -</u>	<u>\$ 1,295,754</u>	<u>\$ 8,295,754</u>	<u>\$ 5,000,000</u>	<u>\$ 3,518,805</u>	<u>\$ 1,195,354</u>	<u>\$ 1,256,036</u>	<u>\$ 10,970,195</u>

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YEAR ENDED JUNE 30, 2019**

	Tobacco-Related Malignancy					Stroke*				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	9,223	-	9,223	-	-	-	-	-
Total contribution revenue	-	-	9,223	-	9,223	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	228,969	228,969	-	-	-	240,420	240,420
Unrealized gain (loss)	-	-	-	(103,057)	(103,057)	-	-	-	(108,244)	(108,244)
Endowment income	-	-	-	86,230	86,230	-	-	-	90,543	90,543
Total investment income (loss)	-	-	-	212,142	212,142	-	-	-	222,719	222,719
Total revenue	-	-	9,223	212,142	221,365	-	-	-	222,719	222,719
Expenditures										
Personal services	-	-	-	114,719	114,719	-	-	-	187,388	187,388
Fringe	-	-	-	43,894	43,894	-	-	-	71,957	71,957
Travel	-	-	-	3,595	3,595	-	-	-	-	-
Subrecipients	-	-	-	-	-	-	-	-	6,285	6,285
Supplies	-	-	-	893	893	-	-	-	731	731
Contractual	-	-	3,360	-	3,360	-	-	-	-	-
Management Fees	-	-	461	85,160	85,621	-	-	-	89,325	89,325
Other	-	-	-	-	-	-	-	-	3,915	3,915
Fixed Charges	-	-	-	454	454	-	-	-	3,048	3,048
Professional & Other Fees	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	3,821	248,715	252,536	-	-	-	362,649	362,649
Excess (deficiency) of revenues over (under) expenditures	-	-	5,402	(36,573)	(31,171)	-	-	-	(139,930)	(139,930)
Transfers	-	-	(748,650)	748,650	-	-	-	(480,120)	372,587	(107,533)
Net Change in Fund Balances	-	-	(743,248)	712,077	(31,171)	-	-	(480,120)	232,657	(247,463)
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	(282,482)	(282,482)
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	5,000,000	1,671,812	1,637,613	2,379,145	10,688,570	5,000,000	2,500,000	654,251	1,684,877	9,839,128
Fund Balance - June 30, 2019	\$ 5,000,000	\$ 1,671,812	\$ 894,365	\$ 3,091,222	\$ 10,657,399	\$ 5,000,000	\$ 2,500,000	\$ 174,131	\$ 1,917,534	\$ 9,591,665

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YEAR ENDED JUNE 30, 2019**

	Renal Disease Biomarker				Cancer Stem Cell Biology and Therapy					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	2,700	2,700
Total contribution revenue	-	-	-	-	-	-	-	-	2,700	2,700
Investment Income										
Realized gain (loss)	-	-	-	195,854	195,854	-	-	-	217,467	217,467
Unrealized gain (loss)	-	-	-	(88,653)	(88,653)	-	-	-	(97,620)	(97,620)
Endowment income	-	-	-	73,824	73,824	-	-	-	81,944	81,944
Total investment income (loss)	-	-	-	181,025	181,025	-	-	-	201,791	201,791
Total revenue	-	-	-	181,025	181,025	-	-	-	204,491	204,491
Expenditures										
Personal services	-	-	-	154,128	154,128	-	-	-	54,493	54,493
Fringe	-	-	-	59,185	59,185	-	-	-	20,544	20,544
Travel	-	-	-	1,315	1,315	-	-	-	-	-
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	17,385	17,385	-	-	-	232,469	232,469
Contractual	-	-	-	3,171	3,171	-	-	-	4,642	4,642
Management fees	-	-	-	72,920	72,920	-	-	-	81,009	81,009
Other	-	-	-	338	338	-	-	-	19	19
Fixed Charges	-	-	-	2,909	2,909	-	-	-	-	-
Professional & Other Fees	-	-	-	550	550	-	-	-	11,925	11,925
Equipment	-	-	-	8,380	8,380	-	-	-	6,606	6,606
Total expenditures	-	-	-	320,281	320,281	-	-	-	411,707	411,707
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(139,256)	(139,256)	-	-	-	(207,216)	(207,216)
Transfers	-	-	48,453	(48,453)	-	-	-	(1,020,922)	1,020,922	-
Net Change in Fund Balances	-	-	48,453	(187,709)	(139,256)	-	-	(1,020,922)	813,706	(207,216)
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	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
Fund Balance - June 30, 2019	\$ 5,000,000	\$ 1,413,707	\$ 1,015,970	\$ 1,485,123	\$ 8,914,800	\$ 5,000,000	\$ 1,541,536	\$ 555,333	\$ 2,412,329	\$ 9,509,198

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YEAR ENDED JUNE 30, 2019**

	Advanced Tissue Biofabrication*					Medication Safety and Efficacy*				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	206,369	206,369	-	-	-	81,084	81,084
Unrealized gain (loss)	-	-	-	(89,424)	(89,424)	-	-	-	(34,602)	(34,602)
Endowment income	-	-	-	77,738	77,738	-	-	-	30,543	30,543
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>194,683</u>	<u>194,683</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>77,025</u>	<u>77,025</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>194,683</u>	<u>194,683</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>77,025</u>	<u>77,025</u>
Expenditures										
Personal services	-	-	-	109,143	109,143	-	-	-	-	-
Fringe	-	-	-	41,911	41,911	-	-	-	-	-
Travel	-	-	-	1,232	1,232	-	-	-	-	-
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	470	470	-	-	-	-	-
Contractual	-	-	-	3,144	3,144	-	-	-	-	-
Management Fees	-	-	-	76,454	76,454	-	-	-	30,048	30,048
Other	-	-	-	-	-	-	-	-	-	-
Fixed Charges	-	-	-	-	-	-	-	-	-	-
Professional & Other Fees	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>232,354</u>	<u>232,354</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>30,048</u>	<u>30,048</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(37,671)	(37,671)	-	-	-	46,977	46,977
Transfers	-	-	-	(129,019)	(129,019)	-	-	(203,232)	133,488	(69,744)
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(166,690)</u>	<u>(166,690)</u>	<u>-</u>	<u>-</u>	<u>(203,232)</u>	<u>180,465</u>	<u>(22,767)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	(420,189)	(420,189)	-	-	-	(119,609)	(119,609)
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>5,000,000</u>	<u>1,200,000</u>	<u>75,000</u>	<u>1,942,724</u>	<u>8,217,724</u>	<u>2,000,000</u>	<u>600,000</u>	<u>203,232</u>	<u>503,327</u>	<u>3,306,559</u>
Fund Balance - June 30, 2019	<u>\$ 5,000,000</u>	<u>\$ 1,200,000</u>	<u>\$ 75,000</u>	<u>\$ 1,776,034</u>	<u>\$ 8,051,034</u>	<u>\$ 2,000,000</u>	<u>\$ 600,000</u>	<u>\$ -</u>	<u>\$ 683,792</u>	<u>\$ 3,283,792</u>

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YEAR ENDED JUNE 30, 2019**

	Prostate Cancer Disparities*					Lipidomics, Pathobiology and Therapy				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	147,014	147,014	-	-	-	255,227	255,227
Unrealized gain (loss)	-	-	-	(64,348)	(64,348)	-	-	-	(115,223)	(115,223)
Endowment income	-	-	-	55,365	55,365	-	-	-	96,238	96,238
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>138,031</u>	<u>138,031</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>236,242</u>	<u>236,242</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>138,031</u>	<u>138,031</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>236,242</u>	<u>236,242</u>
Expenditures										
Personal services	-	-	-	58,263	58,263	-	-	-	156,450	156,450
Fringe	-	-	-	21,841	21,841	-	-	-	60,077	60,077
Travel	-	-	-	1,649	1,649	-	-	-	-	-
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	64,868	64,868
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	54,545	54,545	-	-	-	95,019	95,019
Other	-	-	-	1,594	1,594	-	-	-	537	537
Fixed Charges	-	-	-	3,313	3,313	-	-	-	7,167	7,167
Professional & Other Fees	-	-	-	3,301	3,301	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>144,506</u>	<u>144,506</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>384,118</u>	<u>384,118</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(6,475)	(6,475)	-	-	-	(147,876)	(147,876)
Transfers	-	-	-	(65,982)	(65,982)	-	-	142,529	(142,529)	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(72,457)</u>	<u>(72,457)</u>	<u>-</u>	<u>-</u>	<u>142,529</u>	<u>(290,405)</u>	<u>(147,876)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	(218,798)	(218,798)	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>3,600,000</u>	<u>1,080,000</u>	<u>9,769</u>	<u>1,300,709</u>	<u>5,990,478</u>	<u>5,000,000</u>	<u>3,451,075</u>	<u>(118,779)</u>	<u>1,658,685</u>	<u>9,990,981</u>
Fund Balance - June 30, 2019	<u>\$ 3,600,000</u>	<u>\$ 1,080,000</u>	<u>\$ 9,769</u>	<u>\$ 1,228,252</u>	<u>\$ 5,918,021</u>	<u>\$ 5,000,000</u>	<u>\$ 3,451,075</u>	<u>\$ 23,750</u>	<u>\$ 1,368,280</u>	<u>\$ 9,843,105</u>

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	Inflammation and Fibrosis					Translational Biomedical Informatics				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	165	165	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>165</u>	<u>165</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	224,816	224,816	-	-	-	77,600	77,600
Unrealized gain (loss)	-	-	-	(101,691)	(101,691)	-	-	-	(35,067)	(35,067)
Endowment income	-	-	-	84,748	84,748	-	-	-	29,257	29,257
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>207,873</u>	<u>207,873</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>71,790</u>	<u>71,790</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>208,038</u>	<u>208,038</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>71,790</u>	<u>71,790</u>
Expenditures										
Personal services	-	-	-	164,433	164,433	-	-	-	293,665	293,665
Fringe	-	-	-	61,669	61,669	-	-	-	110,528	110,528
Travel	-	-	-	1,998	1,998	-	-	-	18,277	18,277
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	61	61	-	-	-	516	516
Tuition Assistance	-	-	-	6,677	6,677	-	-	-	-	-
Management Fees	-	-	-	83,709	83,709	-	-	-	28,890	28,890
Other	-	-	-	1,785	1,785	-	-	-	-	-
Fixed Charges	-	-	-	63	63	-	-	-	30	30
Professional & Other Fees	-	-	-	3,000	3,000	-	-	-	7,079	7,079
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>323,395</u>	<u>323,395</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>458,985</u>	<u>458,985</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(115,357)	(115,357)	-	-	-	(387,195)	(387,195)
Transfers	-	-	(2,096,431)	2,096,431	-	-	(710,505)	710,505	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>(2,096,431)</u>	<u>1,981,074</u>	<u>(115,357)</u>	<u>-</u>	<u>-</u>	<u>(710,505)</u>	<u>323,310</u>	<u>(387,195)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	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
Fund Balance - June 30, 2019	<u>\$ 4,999,999</u>	<u>\$ 2,279,049</u>	<u>\$ 161,885</u>	<u>\$ 1,590,462</u>	<u>\$ 9,031,395</u>	<u>\$ 2,000,000</u>	<u>\$ 600,000</u>	<u>\$ 31,379</u>	<u>\$ 668,548</u>	<u>\$ 3,299,927</u>

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YEAR ENDED JUNE 30, 2019**

	Health Facilities Design and Testing*					Brain Imaging*				
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	-	-
Unrealized gain (loss)	-	-	-	-	-	-	-	-	-	-
Endowment income	-	-	-	-	-	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	62,763	62,763	-	-	-	40,307	40,307
Fringe	-	-	-	23,577	23,577	-	-	-	15,478	15,478
Travel	-	-	-	2,778	2,778	-	-	-	-	-
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	13	13	-	-	-	-	-
Fixed Charges	-	-	-	-	-	-	-	-	-	-
Professional & Other Fees	-	-	-	2,196	2,196	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>91,327</u>	<u>91,327</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>55,785</u>	<u>55,785</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(91,327)	(91,327)	-	-	-	(55,785)	(55,785)
Transfers	-	-	-	108,294	108,294	-	-	-	113,891	113,891
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>16,967</u>	<u>16,967</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>58,106</u>	<u>58,106</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	289,624	289,624	-	-	-	259,016	259,016
Fund Balance - June 30, 2018 As Restated	-	-	-	289,624	289,624	-	-	-	259,016	259,016
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 306,591</u>	<u>\$ 306,591</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 317,122</u>	<u>\$ 317,122</u>

* Collaborative Center-Clemson Fiscal Agent

* Collaborative Center-USC Fiscal Agent

**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, 2019**

	Childhood Neurotherapeutics*				Healthcare Quality*					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	-	-
Unrealized gain (loss)	-	-	-	-	-	-	-	-	-	-
Endowment income	-	-	-	-	-	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	-	-	-	-	-	10,931	10,931
Fringe	-	-	-	-	-	-	-	-	4,197	4,197
Travel	-	-	-	637	637	-	-	-	531	531
Subrecipients	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-
Contractual	-	-	-	-	-	-	-	-	-	-
Management Fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Fixed Charges	-	-	-	-	-	-	-	-	-	-
Professional & Other Fees	-	-	-	184	184	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>821</u>	<u>821</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>15,659</u>	<u>15,659</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(821)	(821)	-	-	-	(15,659)	(15,659)
Transfers	-	-	-	77,032	77,032	-	-	-	103,454	103,454
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>76,211</u>	<u>76,211</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>87,795</u>	<u>87,795</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	472,884	472,884	-	-	-	188,426	188,426
Fund Balance - June 30, 2018 As Restated	<u>-</u>	<u>-</u>	<u>-</u>	<u>472,884</u>	<u>472,884</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>188,426</u>	<u>188,426</u>
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 549,095</u>	<u>\$ 549,095</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 276,221</u>	<u>\$ 276,221</u>

* Collaborative Center-USC Fiscal Agent

* Collaborative Center-USC Fiscal Agent

**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, 2019**

	Healthful Lifestyles*				Total - Medical University of South Carolina					
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	Total
Contribution Revenue										
State funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-state matching funds	-	-	-	250	250	-	-	9,793	3,770	13,563
Total contribution revenue	-	-	-	250	250	-	-	9,793	3,770	13,563
Investment Income										
Realized gain (loss)	-	-	-	16,325	16,325	-	-	-	3,794,652	3,794,652
Unrealized gain (loss)	-	-	-	(6,764)	(6,764)	-	-	-	(1,481,881)	(1,481,881)
Endowment income	-	-	-	6,181	6,181	-	-	-	1,426,123	1,426,123
Total investment income (loss)	-	-	-	15,742	15,742	-	-	-	3,738,894	3,738,894
Total revenue	-	-	-	15,992	15,992	-	-	9,793	3,742,664	3,752,457
Expenditures										
Personal services	-	-	-	22,757	22,757	-	-	-	2,997,950	2,997,950
Fringe	-	-	-	8,739	8,739	-	-	-	1,126,220	1,126,220
Travel	-	-	-	1,394	1,394	-	-	701	97,285	97,986
Subrecipients	-	-	-	-	-	-	-	-	6,285	6,285
Supplies	-	-	-	-	-	-	-	-	543,648	543,648
Contractual	-	-	-	-	-	-	-	3,360	17,944	21,304
Management Fees	-	-	-	6,804	6,804	-	-	490	1,424,976	1,425,466
Other	-	-	-	216	216	-	-	1,637	156,747	158,384
Fixed Charges	-	-	-	-	-	-	-	-	19,174	19,174
Professional & Other Fees	-	-	-	-	-	-	-	-	57,121	57,121
Equipment	-	-	-	-	-	-	-	-	174,969	174,969
Total expenditures	-	-	-	39,910	39,910	-	-	6,188	6,622,319	6,628,507
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(23,918)	(23,918)	-	-	3,605	(2,879,655)	(2,876,050)
Transfers	-	-	-	51,120	51,120	-	-	(6,182,000)	5,851,551	(330,449)
Net Change in Fund Balances	-	-	-	27,202	27,202	-	-	(6,178,395)	2,971,896	(3,206,499)
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	88,099,999	34,996,979	12,106,288	31,028,241	166,231,507
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	(2,000,000)	-	(2,569,694)	(4,569,694)
Prior Period Adjustment (Note 6)	-	-	-	658,868	658,868	-	-	-	1,868,818	1,868,818
Fund Balance - June 30, 2018 As Restated	-	-	-	658,868	658,868	88,099,999	32,996,979	12,106,288	30,327,365	163,530,631
Fund Balance - June 30, 2019	\$ -	\$ -	\$ -	\$ 686,070	\$ 686,070	\$ 88,099,999	\$ 32,996,979	\$ 5,927,893	\$ 33,299,261	\$ 160,324,132

* Collaborative Center-USC Fiscal Agent

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2019**

	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	-	-	-	-	-	-	-	-	41,522	41,522
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>41,522</u>	<u>41,522</u>
Investment Income										
Realized gain (loss)	-	-	-	69,017	69,017	-	-	-	87,823	87,823
Unrealized gain (loss)	-	-	-	98,563	98,563	-	-	-	122,216	122,216
Endowment income	-	-	-	30,260	30,260	-	-	-	32,396	32,396
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>197,840</u>	<u>197,840</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>242,435</u>	<u>242,435</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>197,840</u>	<u>197,840</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>283,957</u>	<u>283,957</u>
Expenditures										
Personal services	-	-	-	76,027	76,027	-	-	-	77,543	77,543
Fringe	-	-	-	12,737	12,737	-	-	-	13,316	13,316
Travel	-	-	-	5,814	5,814	-	-	-	3,738	3,738
Supplies	-	-	-	52,651	52,651	-	-	-	3,435	3,435
Tuition assistance	-	-	-	2,845	2,845	-	-	-	1,887	1,887
Administrative fees	-	-	-	20,555	20,555	-	-	-	26,156	26,156
Other	-	-	-	34,985	34,985	-	-	-	45,209	45,209
Equipment	-	-	-	47,814	47,814	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>253,428</u>	<u>253,428</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>171,284</u>	<u>171,284</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(55,588)	(55,588)	-	-	-	112,673	112,673
Transfers	-	-	-	-	-	-	-	-	(113,891)	(113,891)
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(55,588)</u>	<u>(55,588)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(1,218)</u>	<u>(1,218)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	4,000,000	1,631,274	-	1,015,555	6,646,829	5,000,000	2,102,769	-	460,707	7,563,476
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>4,000,000</u>	<u>1,631,274</u>	<u>-</u>	<u>1,015,555</u>	<u>6,646,829</u>	<u>5,000,000</u>	<u>2,102,769</u>	<u>-</u>	<u>460,707</u>	<u>7,563,476</u>
Fund Balance - June 30, 2019	<u>\$ 4,000,000</u>	<u>\$ 1,631,274</u>	<u>\$ -</u>	<u>\$ 959,967</u>	<u>\$ 6,591,241</u>	<u>\$ 5,000,000</u>	<u>\$ 2,102,769</u>	<u>\$ -</u>	<u>\$ 459,489</u>	<u>\$ 7,562,258</u>

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**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2019**

	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	\$ -	\$ 1,050	\$ 16,000	\$ 25,000	\$ 42,050	\$ -	\$ -	\$ -	\$ -	\$ -
Other contributions/revenue	-	-	-	34	34	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>1,050</u>	<u>16,000</u>	<u>25,034</u>	<u>42,084</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	70,329	70,329	-	-	-	71,186	71,186
Unrealized gain (loss)	-	-	-	79,961	79,961	-	-	-	132,806	132,806
Endowment income	-	-	-	21,306	21,306	-	-	-	83,140	83,140
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>171,596</u>	<u>171,596</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>287,132</u>	<u>287,132</u>
Total revenue	<u>-</u>	<u>1,050</u>	<u>16,000</u>	<u>196,630</u>	<u>213,680</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>287,132</u>	<u>287,132</u>
Expenditures										
Personal services	-	-	-	190,994	190,994	-	-	-	126,250	126,250
Fringe	-	-	-	26,239	26,239	-	-	-	34,780	34,780
Travel	-	-	-	36,067	36,067	-	-	-	5,583	5,583
Supplies	-	-	-	10,750	10,750	-	-	-	4,796	4,796
Tuition assistance	-	-	-	7,527	7,527	-	-	-	-	-
Administrative fees	-	-	-	20,944	20,944	-	-	-	21,200	21,200
Other	-	-	1,488	42,964	44,452	-	-	-	81,173	81,173
Equipment	-	-	10,800	-	10,800	-	-	-	149	149
Total expenditures	<u>-</u>	<u>-</u>	<u>12,288</u>	<u>335,485</u>	<u>347,773</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>273,931</u>	<u>273,931</u>
Excess (deficiency) of revenues over (under) expenditures	-	1,050	3,712	(138,855)	(134,093)	-	-	-	13,201	13,201
Transfers	-	-	-	10,983	10,983	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>1,050</u>	<u>3,712</u>	<u>(127,872)</u>	<u>(123,110)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>13,201</u>	<u>13,201</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>3,500,000</u>	<u>1,442,912</u>	<u>12,325</u>	<u>401,362</u>	<u>5,356,599</u>	<u>5,000,000</u>	<u>1,500,000</u>	<u>-</u>	<u>1,892,122</u>	<u>8,392,122</u>
Fund Balance - June 30, 2019	<u>\$ 3,500,000</u>	<u>\$ 1,443,962</u>	<u>\$ 16,037</u>	<u>\$ 273,490</u>	<u>\$ 5,233,489</u>	<u>\$ 5,000,000</u>	<u>\$ 1,500,000</u>	<u>\$ -</u>	<u>\$ 1,905,323</u>	<u>\$ 8,405,323</u>

**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2019**

	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	-	20,000	-	13,532	33,532	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>20,000</u>	<u>-</u>	<u>13,532</u>	<u>33,532</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	44,804	44,804	-	-	-	64,960	64,960
Unrealized gain (loss)	-	-	-	42,768	42,768	-	-	-	65,522	65,522
Endowment income	-	-	-	18,304	18,304	-	-	-	19,578	19,578
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>105,876</u>	<u>105,876</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>150,060</u>	<u>150,060</u>
Total revenue	<u>-</u>	<u>20,000</u>	<u>-</u>	<u>119,408</u>	<u>139,408</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>150,060</u>	<u>150,060</u>
Expenditures										
Personal services	-	-	-	32,681	32,681	-	-	-	113,425	113,425
Fringe	-	-	-	8,525	8,525	-	-	-	12,254	12,254
Travel	-	-	-	19,190	19,190	-	-	-	9,932	9,932
Supplies	-	-	-	2,804	2,804	-	-	-	86,537	86,537
Tuition assistance	-	-	-	14,082	14,082	-	-	-	13,542	13,542
Administrative fees	-	-	-	13,338	13,338	-	-	-	19,346	19,346
Other	-	-	-	2,186	2,186	-	-	-	19,151	19,151
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>92,806</u>	<u>92,806</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>274,187</u>	<u>274,187</u>
Excess (deficiency) of revenues over (under) expenditures	-	20,000	-	26,602	46,602	-	-	-	(124,127)	(124,127)
Transfers	-	-	-	-	-	-	-	-	(10,983)	(10,983)
Net Change in Fund Balances	<u>-</u>	<u>20,000</u>	<u>-</u>	<u>26,602</u>	<u>46,602</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(135,110)</u>	<u>(135,110)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	1,410,000	87	389,861	3,799,948	3,000,000	1,200,000	-	471,928	4,671,928
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	(260,000)	-	(81,768)	(341,768)	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>2,000,000</u>	<u>1,150,000</u>	<u>87</u>	<u>308,093</u>	<u>3,458,180</u>	<u>3,000,000</u>	<u>1,200,000</u>	<u>-</u>	<u>471,928</u>	<u>4,671,928</u>
Fund Balance - June 30, 2019	<u>\$ 2,000,000</u>	<u>\$ 1,170,000</u>	<u>\$ 87</u>	<u>\$ 334,695</u>	<u>\$ 3,504,782</u>	<u>\$ 3,000,000</u>	<u>\$ 1,200,000</u>	<u>\$ -</u>	<u>\$ 336,818</u>	<u>\$ 4,536,818</u>

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	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	-	-	-	-	-	-	-	-	134,862	134,862
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>134,862</u>	<u>134,862</u>
Investment Income										
Realized gain (loss)	-	-	-	5,234	5,234	-	-	-	127,053	127,053
Unrealized gain (loss)	-	-	-	132,038	132,038	-	-	-	97,246	97,246
Endowment income	-	-	-	16,406	16,406	-	-	-	41,159	41,159
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>153,678</u>	<u>153,678</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>265,458</u>	<u>265,458</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>153,678</u>	<u>153,678</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>400,320</u>	<u>400,320</u>
Expenditures										
Personal services	-	-	-	72,352	72,352	-	-	-	172,118	172,118
Fringe	-	-	-	10,059	10,059	-	-	-	30,781	30,781
Travel	-	-	-	10,332	10,332	-	-	-	21,942	21,942
Supplies	-	-	-	6,997	6,997	-	-	-	5,076	5,076
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	1,559	1,559	-	-	-	37,839	37,839
Other	-	-	-	3,454	3,454	-	-	-	42,609	42,609
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>104,753</u>	<u>104,753</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>310,365</u>	<u>310,365</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	48,925	48,925	-	-	-	89,955	89,955
Transfers	-	-	-	-	-	-	-	-	(77,032)	(77,032)
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>48,925</u>	<u>48,925</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>12,923</u>	<u>12,923</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	900,000	-	398,509	4,298,509	5,000,000	2,502,066	-	1,047,467	8,549,533
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>3,000,000</u>	<u>900,000</u>	<u>-</u>	<u>398,509</u>	<u>4,298,509</u>	<u>5,000,000</u>	<u>2,502,066</u>	<u>-</u>	<u>1,047,467</u>	<u>8,549,533</u>
Fund Balance - June 30, 2019	<u>\$ 3,000,000</u>	<u>\$ 900,000</u>	<u>\$ -</u>	<u>\$ 447,434</u>	<u>\$ 4,347,434</u>	<u>\$ 5,000,000</u>	<u>\$ 2,502,066</u>	<u>\$ -</u>	<u>\$ 1,060,390</u>	<u>\$ 8,562,456</u>

* Collaborative Center

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	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	-	-	-	222,144	222,144	-	-	-	-	-
Total contribution revenue	-	-	-	222,144	222,144	-	-	-	-	-
Investment Income										
Realized gain (loss)	-	-	-	76,039	76,039	-	-	-	116,966	116,966
Unrealized gain (loss)	-	-	-	129,717	129,717	-	-	-	106,705	106,705
Endowment income	-	-	10,127	23,642	33,769	-	-	-	45,469	45,469
Total investment income (loss)	-	-	10,127	229,398	239,525	-	-	-	269,140	269,140
Total revenue	-	-	10,127	451,542	461,669	-	-	-	269,140	269,140
Expenditures										
Personal services	-	-	174,844	215,523	390,367	-	-	-	110,333	110,333
Fringe	-	-	47,119	61,494	108,613	-	-	-	13,170	13,170
Travel	-	-	6,931	11,748	18,679	-	-	-	29,145	29,145
Supplies	-	-	723	2,787	3,510	-	-	4,039	8,087	12,126
Tuition assistance	-	-	6,400	21,373	27,773	-	-	-	24,713	24,713
Administrative fees	-	-	-	22,646	22,646	-	-	-	34,835	34,835
Other	-	-	212,816	141,297	354,113	-	-	980	7,137	8,117
Equipment	-	-	1,584	3,996	5,580	-	-	-	14,348	14,348
Total expenditures	-	-	450,417	480,864	931,281	-	-	5,019	241,768	246,787
Excess (deficiency) of revenues over (under) expenditures	-	-	(440,290)	(29,322)	(469,612)	-	-	(5,019)	27,372	22,353
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	-	-	(440,290)	(29,322)	(469,612)	-	-	(5,019)	27,372	22,353
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	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
Fund Balance - June 30, 2019	\$ 5,000,000	\$ 1,500,000	\$ 1,096,911	\$ 421,387	\$ 8,018,298	\$ 5,000,000	\$ 2,515,000	\$ 15,813	\$ 1,370,678	\$ 8,901,491

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	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	-	-	-	38,713	38,713	-	-	-	14,299	14,299
Total contribution revenue	-	-	-	38,713	38,713	-	-	-	14,299	14,299
Investment Income										
Realized gain (loss)	-	-	-	101,503	101,503	-	-	-	89,722	89,722
Unrealized gain (loss)	-	-	-	113,508	113,508	-	-	-	121,008	121,008
Endowment income	-	-	-	34,434	34,434	-	-	-	35,467	35,467
Total investment income (loss)	-	-	-	249,445	249,445	-	-	-	246,197	246,197
Total revenue	-	-	-	288,158	288,158	-	-	-	260,496	260,496
Expenditures										
Personal services	-	-	-	218,656	218,656	-	-	-	146,607	146,607
Fringe	-	-	-	55,313	55,313	-	-	-	36,510	36,510
Travel	-	-	-	20,033	20,033	-	-	-	21,472	21,472
Supplies	-	-	-	12,806	12,806	-	-	2,288	11,856	14,144
Tuition assistance	-	-	-	31,783	31,783	-	-	-	1,500	1,500
Administrative fees	-	-	-	30,230	30,230	-	-	-	26,721	26,721
Other	-	-	-	41,818	41,818	-	-	-	40,075	40,075
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	-	-	-	410,639	410,639	-	-	2,288	284,741	287,029
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(122,481)	(122,481)	-	-	(2,288)	(24,245)	(26,533)
Transfers	-	-	-	(103,454)	(103,454)	-	-	-	(127,014)	(127,014)
Net Change in Fund Balances	-	-	-	(225,935)	(225,935)	-	-	(2,288)	(151,259)	(153,547)
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	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
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	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
Fund Balance - June 30, 2019	\$ 5,000,000	\$ 2,000,000	\$ -	\$ 938,072	\$ 7,938,072	\$ 5,000,000	\$ 2,000,000	\$ 24,472	\$ 728,257	\$ 7,752,729

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	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	-	-	-	52,580	52,580	-	-	1,416	-	1,416
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>52,580</u>	<u>52,580</u>	<u>-</u>	<u>-</u>	<u>1,416</u>	<u>-</u>	<u>1,416</u>
Investment Income										
Realized gain (loss)	-	-	-	54,872	54,872	-	-	-	46,020	46,020
Unrealized gain (loss)	-	-	-	71,944	71,944	-	-	-	177,578	177,578
Endowment income	-	-	-	16,828	16,828	-	-	-	14,956	14,956
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>143,644</u>	<u>143,644</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>238,554</u>	<u>238,554</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>196,224</u>	<u>196,224</u>	<u>-</u>	<u>-</u>	<u>1,416</u>	<u>238,554</u>	<u>239,970</u>
Expenditures										
Personal services	-	-	-	160,083	160,083	-	-	-	346,380	346,380
Fringe	-	-	-	22,156	22,156	-	-	-	32,924	32,924
Travel	-	-	-	31,944	31,944	-	-	-	10,339	10,339
Supplies	-	-	-	27,309	27,309	-	-	1,149	-	1,149
Tuition assistance	-	-	-	7,612	7,612	-	-	-	-	-
Administrative fees	-	-	-	16,342	16,342	-	-	-	13,706	13,706
Other	-	-	-	23,971	23,971	-	-	267	10,389	10,656
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>289,417</u>	<u>289,417</u>	<u>-</u>	<u>-</u>	<u>1,416</u>	<u>413,738</u>	<u>415,154</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(93,193)	(93,193)	-	-	-	(175,184)	(175,184)
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(93,193)</u>	<u>(93,193)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(175,184)</u>	<u>(175,184)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	1,000,000	-	461,724	4,461,724	3,000,000	905,000	-	533,827	4,438,827
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>3,000,000</u>	<u>1,000,000</u>	<u>-</u>	<u>461,724</u>	<u>4,461,724</u>	<u>3,000,000</u>	<u>905,000</u>	<u>-</u>	<u>533,827</u>	<u>4,438,827</u>
Fund Balance - June 30, 2019	<u>\$ 3,000,000</u>	<u>\$ 1,000,000</u>	<u>\$ -</u>	<u>\$ 368,531</u>	<u>\$ 4,368,531</u>	<u>\$ 3,000,000</u>	<u>\$ 905,000</u>	<u>\$ -</u>	<u>\$ 358,643</u>	<u>\$ 4,263,643</u>

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	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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,130	\$ -	\$ -	\$ 4,130
Other contributions/revenue	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4,130</u>	<u>-</u>	<u>-</u>	<u>4,130</u>
Investment Income										
Realized gain (loss)	-	-	-	63,675	63,675	-	-	-	23,455	23,455
Unrealized gain (loss)	-	-	-	66,340	66,340	-	-	-	92,346	92,346
Endowment income	-	-	-	38,750	38,750	-	-	-	22,804	22,804
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>168,765</u>	<u>168,765</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>138,605</u>	<u>138,605</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>168,765</u>	<u>168,765</u>	<u>-</u>	<u>4,130</u>	<u>-</u>	<u>138,605</u>	<u>142,735</u>
Expenditures										
Personal services	-	-	-	20,000	20,000	-	-	-	20,200	20,200
Fringe	-	-	-	4,927	4,927	-	-	-	4,521	4,521
Travel	-	-	-	17,003	17,003	-	-	-	-	-
Supplies	-	-	-	19,296	19,296	-	-	-	1,604	1,604
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	18,964	18,964	-	-	-	6,981	6,981
Other	-	-	-	1,521	1,521	-	-	-	323	323
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>81,711</u>	<u>81,711</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>33,629</u>	<u>33,629</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	87,054	87,054	-	4,130	-	104,976	109,106
Transfers	-	-	-	-	-	-	-	-	(51,120)	(51,120)
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>87,054</u>	<u>87,054</u>	<u>-</u>	<u>4,130</u>	<u>-</u>	<u>53,856</u>	<u>57,986</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	3,000,000	1,410,000	-	812,696	5,222,696	3,000,000	461,160	-	599,637	4,060,797
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>3,000,000</u>	<u>1,410,000</u>	<u>-</u>	<u>812,696</u>	<u>5,222,696</u>	<u>3,000,000</u>	<u>461,160</u>	<u>-</u>	<u>599,637</u>	<u>4,060,797</u>
Fund Balance - June 30, 2019	<u>\$ 3,000,000</u>	<u>\$ 1,410,000</u>	<u>\$ -</u>	<u>\$ 899,750</u>	<u>\$ 5,309,750</u>	<u>\$ 3,000,000</u>	<u>\$ 465,290</u>	<u>\$ -</u>	<u>\$ 653,493</u>	<u>\$ 4,118,783</u>

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YEAR ENDED JUNE 30, 2019**

	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	-	-	-	-	-	-	-	-	121,477	121,477
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>121,477</u>	<u>121,477</u>
Investment Income										
Realized gain (loss)	-	-	-	75,021	75,021	-	-	-	174,108	174,108
Unrealized gain (loss)	-	-	-	23,494	23,494	-	-	-	(39,577)	(39,577)
Endowment income	-	-	-	39,683	39,683	-	-	-	56,217	56,217
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>138,198</u>	<u>138,198</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>190,748</u>	<u>190,748</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>138,198</u>	<u>138,198</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>312,225</u>	<u>312,225</u>
Expenditures										
Personal services	-	-	-	132,289	132,289	-	-	-	24,799	24,799
Fringe	-	-	-	36,908	36,908	-	-	-	3,490	3,490
Travel	-	-	-	13,103	13,103	-	-	-	13,763	13,763
Supplies	-	-	-	5,191	5,191	-	-	-	23,286	23,286
Tuition assistance	-	-	-	797	797	-	-	-	11,605	11,605
Administrative fees	-	-	-	22,343	22,343	-	-	-	51,853	51,853
Other	-	-	-	12,631	12,631	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>223,262</u>	<u>223,262</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>128,796</u>	<u>128,796</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(85,064)	(85,064)	-	-	-	183,429	183,429
Transfers	-	-	-	-	-	-	-	-	-	-
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(85,064)</u>	<u>(85,064)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>183,429</u>	<u>183,429</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	2,000,000	1,582,098	-	1,333,438	4,915,536	2,000,000	3,750,000	-	693,077	6,443,077
Reclassification in Reporting Entity (Note 5)	-	-	-	-	-	-	-	-	-	-
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>2,000,000</u>	<u>1,582,098</u>	<u>-</u>	<u>1,333,438</u>	<u>4,915,536</u>	<u>2,000,000</u>	<u>3,750,000</u>	<u>-</u>	<u>693,077</u>	<u>6,443,077</u>
Fund Balance - June 30, 2019	<u>\$ 2,000,000</u>	<u>\$ 1,582,098</u>	<u>\$ -</u>	<u>\$ 1,248,374</u>	<u>\$ 4,830,472</u>	<u>\$ 2,000,000</u>	<u>\$ 3,750,000</u>	<u>\$ -</u>	<u>\$ 876,506</u>	<u>\$ 6,626,506</u>

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YEAR ENDED JUNE 30, 2019**

	Advanced Tissue Biofabrication*					Cancer Drug Discovery*				
	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	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	-	-
Unrealized gain (loss)	-	-	-	-	-	-	-	-	-	-
Endowment income	-	-	-	-	-	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	-	-	-	-	-	49,167	49,167
Fringe	-	-	-	-	-	-	-	-	708	708
Travel	-	-	-	-	-	-	-	-	929	929
Supplies	-	-	-	-	-	-	-	-	21,679	21,679
Tuition assistance	-	-	-	-	-	-	-	-	73	73
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>72,556</u>	<u>72,556</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	-	-	-	-	-	(72,556)	(72,556)
Transfers	-	-	-	64,510	64,510	-	-	-	61,087	61,087
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>64,510</u>	<u>64,510</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(11,469)</u>	<u>(11,469)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	222,110	222,110	-	-	-	241,658	241,658
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	47,110	47,110
Fund Balance - June 30, 2018 As Restated	<u>-</u>	<u>-</u>	<u>-</u>	<u>222,110</u>	<u>222,110</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>288,768</u>	<u>288,768</u>
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 286,620</u>	<u>\$ 286,620</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 277,299</u>	<u>\$ 277,299</u>

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YEAR ENDED JUNE 30, 2019**

	Clinical Effectiveness and Patient Safety*					Translational Cancer Therapeutics*				
	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	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	-	-
Unrealized gain (loss)	-	-	-	-	-	-	-	-	-	-
Endowment income	-	-	-	-	-	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	43,371	43,371	-	-	-	71,403	71,403
Fringe	-	-	-	20,845	20,845	-	-	-	24,917	24,917
Travel	-	-	-	-	-	-	-	-	545	545
Supplies	-	-	-	2,155	2,155	-	-	-	63,955	63,955
Tuition assistance	-	-	-	364	364	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	23,450	23,450
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>66,735</u>	<u>66,735</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>184,270</u>	<u>184,270</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(66,735)	(66,735)	-	-	-	(184,270)	(184,270)
Transfers	-	-	-	70,224	70,224	-	-	-	119,130	119,130
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,489</u>	<u>3,489</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(65,140)</u>	<u>(65,140)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported			-	-	-				-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	282,775	282,775	-	-	-	92,178	92,178
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>-</u>	<u>-</u>	<u>-</u>	<u>282,775</u>	<u>282,775</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>92,178</u>	<u>92,178</u>
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 286,264</u>	<u>\$ 286,264</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 27,038</u>	<u>\$ 27,038</u>

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**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
UNIVERSITY OF SOUTH CAROLINA
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YEAR ENDED JUNE 30, 2019**

	Medication Safety & Efficacy*					Prostate Cancer Disparities*				
	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	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	-	-
Unrealized gain (loss)	-	-	-	-	-	-	-	-	-	-
Endowment income	-	-	-	-	-	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	110,088	110,088	-	-	-	-	-
Fringe	-	-	-	23,507	23,507	-	-	-	-	-
Travel	-	-	-	10,088	10,088	-	-	-	-	-
Supplies	-	-	-	2,643	2,643	-	-	-	-	-
Tuition assistance	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	7,459	7,459	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>153,785</u>	<u>153,785</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(153,785)	(153,785)	-	-	-	-	-
Transfers	-	-	-	69,744	69,744	-	-	-	65,982	65,982
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>(84,041)</u>	<u>(84,041)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>65,982</u>	<u>65,982</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	119,609	119,609	-	-	-	218,798	218,798
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	7,750	-	7,750
Fund Balance - June 30, 2018 As Restated	<u>-</u>	<u>-</u>	<u>-</u>	<u>119,609</u>	<u>119,609</u>	<u>-</u>	<u>-</u>	<u>7,750</u>	<u>218,798</u>	<u>226,548</u>
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 35,568</u>	<u>\$ 35,568</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 7,750</u>	<u>\$ 284,780</u>	<u>\$ 292,530</u>

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UNIVERSITY OF SOUTH CAROLINA
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YEAR ENDED JUNE 30, 2019**

	Regenerative Medicine*					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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other contributions/revenue	-	-	-	-	-	-	-	-	-	-
Total contribution revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Investment Income										
Realized gain (loss)	-	-	-	-	-	-	-	-	-	-
Unrealized gain (loss)	-	-	-	-	-	-	-	-	-	-
Endowment income	-	-	-	-	-	-	-	-	-	-
Total investment income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditures										
Personal services	-	-	-	22,500	22,500	-	-	-	44,836	44,836
Fringe	-	-	-	2,971	2,971	-	-	-	6,725	6,725
Travel	-	-	-	-	-	-	-	-	2,789	2,789
Supplies	-	-	-	-	-	-	-	-	53,262	53,262
Tuition assistance	-	-	-	-	-	-	-	-	6,974	6,974
Administrative fees	-	-	-	-	-	-	-	-	311	311
Other	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-
Total expenditures	<u>-</u>	<u>-</u>	<u>-</u>	<u>25,471</u>	<u>25,471</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>114,897</u>	<u>114,897</u>
Excess (deficiency) of revenues over (under) expenditures	-	-	-	(25,471)	(25,471)	-	-	-	(114,897)	(114,897)
Transfers	-	-	-	80,760	80,760	-	-	-	107,533	107,533
Net Change in Fund Balances	<u>-</u>	<u>-</u>	<u>-</u>	<u>55,289</u>	<u>55,289</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(7,364)</u>	<u>(7,364)</u>
Cumulative Program Fund Balances										
Beginning Fund Balances as Previously Reported	-	-	-	-	-	-	-	-	-	-
Reclassification in Reporting Entity (Note 5)	-	-	-	73,050	73,050	-	-	-	282,482	282,482
Prior Period Adjustment (Note 6)	-	-	-	-	-	-	-	-	-	-
Fund Balance - June 30, 2018 As Restated	<u>-</u>	<u>-</u>	<u>-</u>	<u>73,050</u>	<u>73,050</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>282,482</u>	<u>282,482</u>
Fund Balance - June 30, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 128,339</u>	<u>\$ 128,339</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 275,118</u>	<u>\$ 275,118</u>

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**SOUTH CAROLINA CENTERS OF ECONOMIC EXCELLENCE
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YEAR ENDED JUNE 30, 2019**

	Total - University of South Carolina				Total
	State Endowment	Non-State Endowment	Non-State Expendable	Endowment Earnings	
Contribution Revenue					
Non-state matching funds	\$ -	\$ 5,180	\$ 16,000	\$ 25,000	\$ 46,180
Other contributions/revenue	-	20,000	1,416	639,163	660,579
Total contribution revenue	-	25,180	17,416	664,163	706,759
Investment Income					
Realized gain (loss)	-	-	-	1,361,787	1,361,787
Unrealized gain (loss)	-	-	-	1,634,183	1,634,183
Endowment income	-	-	10,127	590,799	600,926
Total investment income (loss)	-	-	10,127	3,586,769	3,596,896
Total revenue	-	25,180	27,543	4,250,932	4,303,655
Expenditures					
Personal services	-	-	174,844	2,597,625	2,772,469
Fringe	-	-	47,119	499,777	546,896
Travel	-	-	6,931	295,499	302,430
Supplies	-	-	8,199	428,962	437,161
Tuition assistance	-	-	6,400	146,677	153,077
Administrative fees	-	-	-	405,869	405,869
Other	-	-	215,551	581,802	797,353
Equipment	-	-	12,384	66,307	78,691
Total expenditures	-	-	471,428	5,022,518	5,493,946
Excess (deficiency) of revenues over (under) expenditures	-	25,180	(443,885)	(771,586)	(1,190,291)
Transfers	-	-	-	166,459	166,459
Net Change in Fund Balances	-	25,180	(443,885)	(605,127)	(1,023,832)
Cumulative Program Fund Balances					
Beginning Fund Balances as Previously Reported	66,500,000	29,812,279	1,597,205	14,349,448	112,258,932
Reclassification in Reporting Entity (Note 5)	-	-	-	1,532,660	1,532,660
Prior Period Adjustment (Note 6)	-	(260,000)	7,750	(34,658)	(286,908)
Fund Balance - June 30, 2018 As Restated	66,500,000	29,552,279	1,604,955	15,847,450	113,504,684
Fund Balance - June 30, 2019	\$ 66,500,000	\$ 29,577,459	\$ 1,161,070	\$ 15,242,323	\$ 112,480,852