

STROKE RECOVERY RESEARCH CENTER

A Center of Biomedical Research Excellence (COBRE) in Stroke Recovery at the Medical University of South Carolina

CHANGING THE FACE OF RESEARCH



COBRE RENEWAL

It's been a successful 4 years and now we look into the future was SRRRC resubmits grant application for another 5 years.

More on page 3

SRRRC TAKES ON BLS

There is no better way to know that SRRRC team members are fully trained for an medical situation that may happen during a participant visit on site.

More on Page 4

JI'S GRADUATE

Every year a set of Junior Investigators set out to graduate.

More on Page 3

FROM THE DIRECTOR

Steve add your message here

Steve Kautz, PhD

**COBRE Application Renewal****THE FUTURE AWAITS**

While COBRE Phase I has been highly successful, the team believes the coming years will be even more productive as more of the Phase I investments reach the point of generating outcomes. There have been an impressive number of achievements to date. For example, all five Phase I junior investigators have now become independent researchers or Principal Investigators and the recipients of a variety of highly sought-after awards and grants.

Importantly, there has also been exceptional growth in research funding, with the number of Principal Investigators with stroke recovery funding nearly tripling since the start of the initiative. Annual research funding in stroke recovery at MUSC has grown from \$2.3 million at the time of COBRE award to \$9.4 million in year 4. The diversity of disciplines represented at the centre is considered to be excellent and there has been a substantial increase in stroke recovery publications and presentations.

With the recent resubmission of the application the COBRE team is looking forward to increasing & growing the center to its potential.

"I am so pleased with how everyone worked together to update their proposals so that the reviewer's comments were addressed. We also had the additional challenge of addressing the new Human Subjects section in the application. Everyone had a very positive attitude and showed a lot of patience while we worked through the new areas. From our communications with the Program Officer we feel the original application will be funded; however, if it is not funded I am confident that we submitted a stronger proposal in the resubmission that will merit funding."

LuAnne O'Connor

Grants Administrator, CRA

Congratulations to the following Junior Investigators on Graduation:

Chris Gregory PhD – need to add description

Wayne Feng PhD – need to add description

Mark Bowden MD – need to add description

SRRC Takes on BLS



Quality assurance in stroke research recovery is always a priority when seeing patients. SRRC has ensured that personnel in the CHP-C building have the required skill sets when visiting patients are on site.

A total of 19 SRRC personnel trained in September & October to receive their BLS certification.



THIS SECTION IS OPEN



“Today’s data will drive the future of pragmatic clinical trials.”

**Katy Knowlin,
MHA**

SRRC KICKS OFF A NEW TEAM CALLED DATA TASK FORCE.

The task force team will be focusing on creating a clinical data management road map for SRRC. This will include data archiving, updating internal data systems & creating the ability to share data among internal & external parties. This team will set the frontier for data mining within MUSC and stroke research data.

The team is composed of:

- Robert Adams, MD
- Jihad Obeid, MD
- Viswanathan Ramakrishnan, PhD
- Abigail Lauer
- Heather Knight
- Christian Finetto
- John Clark
- Lynn Patterson
- Scott Hutchinson
- Katy Knowlin

Pending a paragraph from Heather Knight

LEARNING CORNER

Stroke Statistics

- Stroke kills about **140,000** Americans each year—that's **1 out of every 20 deaths**.¹
- Someone in the United States has a stroke every **40 seconds**. Every **4 minutes**, someone dies of stroke.²
- Every year, more than **795,000 people** in the United States have a stroke. About 610,000 of these are first or new strokes.²
- About 185,00 strokes—**nearly 1 of 4**—are in people who have had a previous stroke.²
- About **87%** of all strokes are [ischemic strokes](#), in which blood flow to the brain is blocked.²

SRRC FUN FACTS

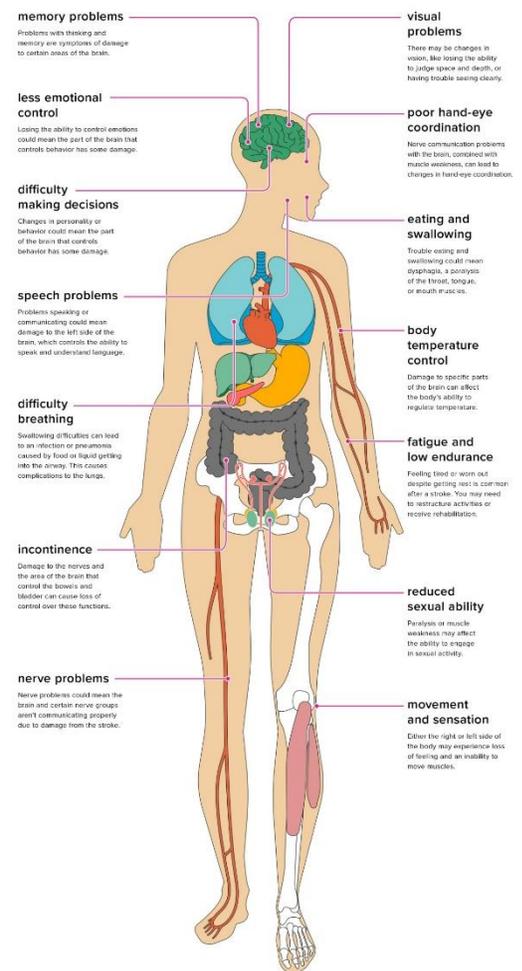
THIS SECTION
IS OPEN

“OPEN FOR A QOUTE”

Did You KNOW ?

THE EFFECTS OF STROKE

A stroke happens when blood carrying oxygen is unable to get to part of the brain. Brain cells get damaged and can die if left without oxygen even for a few minutes. A stroke requires immediate medical care, is potentially deadly, and can affect several parts of the body well after the event is over.



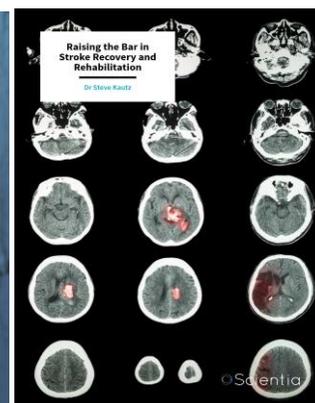
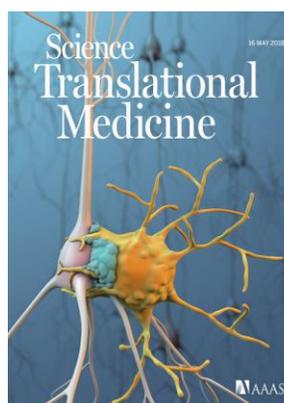
SRRC 2018 Publications

AUTHORS	TITLE
Wonsetler EC, Miller EL, Huey KL, Frye SE, and Bowden MG .	Association Between Altered Hip Extension and Kinetic Gait Variables
A.A. Berthiaume, R.I. Grant, K.P. McDowell, R.G. Underly, D.A. Hartmann, M. Levy, N.R. Bhat and A.Y. Shih	Dynamic remodeling of pericytes in vivo maintains capillary coverage in the adult mouse brain.
A.Y. Shih , H.I. Hyacinth, D.A. Hartmann, S.J. van Veluw	Rodent models of cerebral microinfarct and microhemorrhage.
Alawieh A, Zhao J, Feng W .	Factors affecting post-stroke motor recovery: Implications on neurotherapy after brain injury.
Ross RE, VanDerwerker CJ, Newton JH, George MS, Short EB, Sahlem GL, Manett AJ, Fox JB, Gregory CM .	Simultaneous aerobic exercise and rTMS: Feasibility of combining therapeutic modalities to treat depression.
Dong Y, Fang K, Wang X, Chen S, Liu X, Zhao Y, Guan Y, Cai D, Li G, Liu J, Liu J, Zhuang J, Wang P, Chen X, Shen H, Wang DZ, Xian Y, Feng W , Campbell BC, Parsons M, Dong Q.	The network of Shanghai Stroke Service System (4S): A public health-care web-based database using automatic extraction of electronic medical records.
Pratik Chhatbar, Steve Kautz , Gonzalo Revuleta, Nathan Rowland , Mark George , Wuwei Feng .	Transcranial Direct Current Stimulation Generated Electric Fields at Subcortical Levels in Human Brain in vivo
Chhatbar PY, Kautz SA , Takacs I, Rowland NC , Revuelta GJ, George MS, Bikson M, Feng W .	Evidence of transcranial direct current stimulation-generated electric fields at subthalamic level in human brain in vivo.
Alawieh A, Chatterjee A, Feng W , Porto G, Vargas J, Kellogg R, Turk AS, Turner RD, Imran Chaudry M, Spiotta AM.	Thrombectomy for acute ischemic stroke in the elderly: a 'real world' experience.
Owolabi MO, Yaria JO, Daivadanam M, Makanjuola AI, Parker G, Oldenburg B, Vedanthan R, Norris S, Oguntoy AR, Osundina MA, Herasme O, Lakoh S, Ogunjimi LO, Abraham SE, Olowoyo P, Jenkins C, Feng W , Bayona H, Mohan S, Joshi R, Webster R, Kengne AP, Trofor A, Lotrean LM, Praveen D, Zafra-Tanaka JH, Lazo-Porras M, Bobrow K, Riddell MA, Makrilakis K, Manios Y, Ovbiagele B; COUNCIL Initiative.	Gaps in Guidelines for the Management of Diabetes in Low- and Middle-Income Versus High-Income Countries-A Systematic Review.
Zhao W, Shang S, Li C, Wu L, Wu C, Chen J, Song H, Zhang H, Zhang Y, Duan J, Feng W , Ji X.	Long-term outcomes of acute ischemic stroke patients treated with endovascular thrombectomy: A real-world experience.
Girotra T, Lowe F, Feng W , Ovbiagele B.	Antiplatelet Agents in Secondary Stroke Prevention: Selection, Timing, and Dose.
Harnish SM, Rodriguez AD, Blackett DS, Gregory CM , Seeds L and Crosson B	Aerobic exercise as an adjuvant to aphasia therapy: theory, preliminary findings, and future directions.
Seif GA, Kraft SV, Bowden MG , Boissonnalt JS.	Intra-rater Reliability of the ECHOWS Tool for Real-time Assessment of Physical Therapy Student Interviewing Skills: A Pilot Study.
Charalambous CC, Dean JC , Atkins DL , Hanlon CA, Bowden MG .	Characterizing the Corticomotor Connectivity of the Bilateral Ankle Muscles during Rest and Isometric Contraction in Healthy Adults.
Berthiaume AA, Hartmann DA, Majesky MW, Bhat NR, Shih AY .	Pericyte Structural Remodeling in Cerebrovascular Health and Homeostasis.
Seamon BA, Neptune RR, Kautz SA .	Using a Module-Based Analysis Framework for Investigating Muscle Coordination during Walking in Individuals Poststroke: A Literature Review and Synthesis.
Stimpson KH, Heitkamp LN, Horne JS, Dean JC .	Effects of walking speed on the step-by-step control of step width.
Sacco CC, Gaffney EM, Dean JC .	Effects of White Noise Achilles Tendon Vibration on Quiet Standing and Active Postural Positioning.
Fridriksson J, Elm J, Stark BC, Basilakos A, Rorden C, Sen S, George MS, Gottfried M, Bonilha L .	BDNF genotype and tDCS interaction in aphasia treatment.
Fridriksson J, Rorden C, Elm J, Sen S, George MS, Bonilha L .	Transcranial Direct Current Stimulation vs Sham Stimulation to Treat Aphasia After Stroke: A Randomized Clinical Trial.



HIGHLIGHTS

- **Targeted complement inhibition salvages stressed neurons and inhibits neuroinflammation after stroke in mice**
- **COBRE – Raising the Bar in Stroke Recovery and Rehabilitation**



CLOSING STUDIES**Thera bracelet**

Pending Description from Najin

Pending Image from Na Jin

Myomo

Pending Description from Scott

Pending Image from Scott

Meet a COBRE Team Member: Holly Boggan, Program Coordinator

1. When did you join MUSC?
2. What was your first car?
3. Describe yourself in 3 words.
4. If you could have dinner with one famous person, who would it be and why?
5. What are some of your hobbies.
6. Where is your ideal vacation destination?

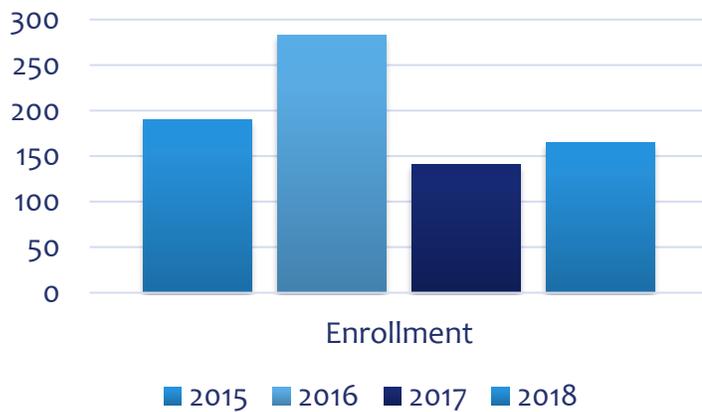
Pending Holly's Image

Add a summary here

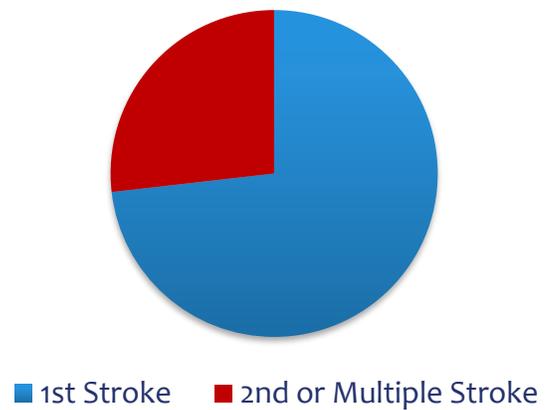
PATIENT data within our Studies

RESTORE at a Closer Look

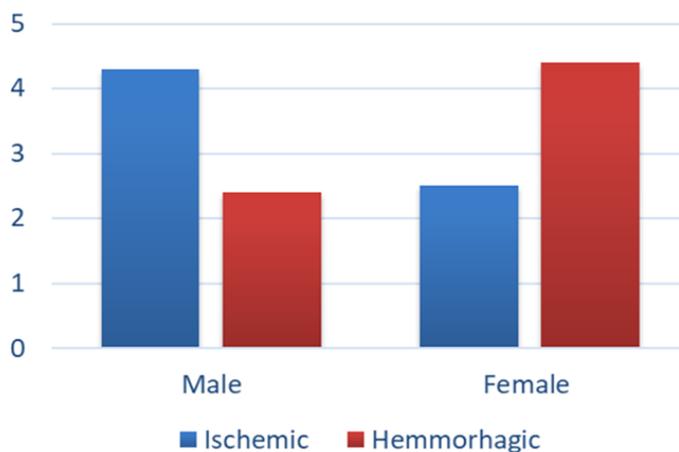
RESTORE Count 856



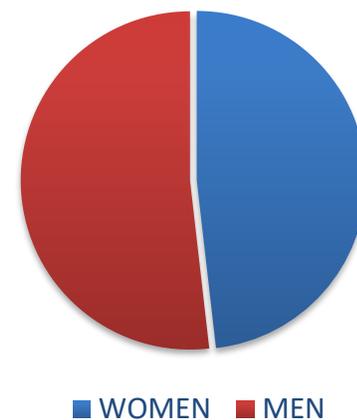
Stroke History



Types of Strokes



GENDER



UP COMING EVENTS

SAVE THE DATE	EVENT
	<p>COBRE MONTHLY EC/JI MEETING</p>
	<p>COBRE ANNUAL MEETING JAN 21ST & 22ND</p>
	
	<p>2019 QUARTER 1 NEWSLETTER</p>

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WE'RE ON THE WEB!

SEE US AT:

<http://academicdepartments.musc.edu/srrc/>

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