

Sept. 8, 2017

MEDICAL UNIVERSITY of SOUTH CAROLINA

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Inside Utah-type incident not likely at MUSC

ARK OF TASTE

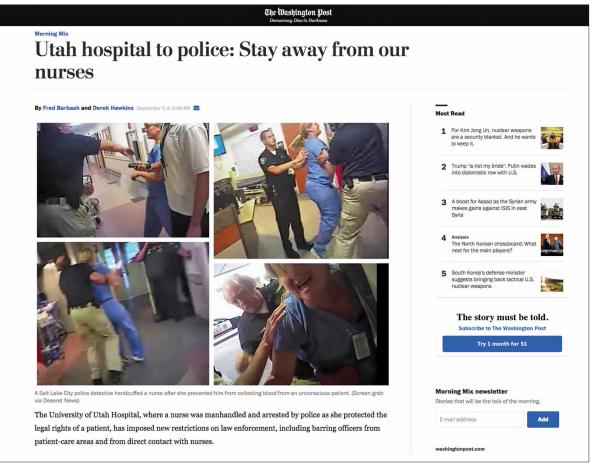
Urban Farm fights food extinction.

International **SPACE STATION**

MUSC partners to explore research in space.

- Harvey Support
- Meet Bryan
- **ImagineNation**

THE CATALYST ONLINE http://www. musc.edu/ catalyst



The Washington Post chronicles scenes from a video showing Utah nurse Alex Wubbels being dragged from University Hospital in Salt Lake City. Arriving with no warrant, Salt Lake City police detective Jeff Payne wanted a blood sample to be drawn from an unconscious patient, and Wubbels, following hospital policy and adhering to a Supreme Court ruling, could not comply. She was arrested.

Screen grab from The Washington Post

By Mikie Hayes

hayesmi@musc.edu

You're a nurse. You wake up at 5 a.m. and head out in the darkness for your shift. Never in a million years would you think you might leave the hospital that afternoon in handcuffs, accused of obstructing justice.

Hospital care team members take their jobs very seriously. They put patients and families first every day. Even when there's a hurricane in the Atlantic or a sick child at home, patients' needs almost always come ahead of their own. That's the job.

But what happens when the best interests of a patient and the law of the land collide? That exact situation played out in front of a national audience on Sept.1, when a nurse at the University of Utah Hospital's burn unit in Salt Lake City stood her ground, not allowing a warrantless detective to draw blood from an unconscious patient who had been involved in a head-on collision.

In a moment that stunned the nation, the nurse was handcuffed and dragged out of the hospital for not complying with the officer's wishes.

Could that situation happen at MUSC? The short answer is no.

MUSC has both its own armed police force, led by a 25-year veteran of the New York Police Force who served as commanding officer of the Organized Crime and Drug Enforcement Task Force, as well as hospital security, which is headed by a retired Charleston Police Department captain with 23 years of service. Beyond the tightly organized and well-coordinated activities

of both departments, both federal and state

laws would preclude that situation from ever transpiring at MUSC.

Kevin Kerley, chief of MUSC's Department of Public Safety, said there are important ramifications from what happened in Utah. "This would not have happened at MUSC. Not only



Kerley

has the Supreme Court ruled that any blood drawn, other than consensual, requires a

See Professional on page 10

PEOPLE

Annette Drachman



Annette Drachman, J.D., MUSC general counsel, was selected as one of the inaugural 2017 Legal Elite featured in the September/ October issue of the Charleston Business Magazine. Drachman has been

with MUSC since 2001, initially working with MUHA. She has served as general counsel since 2012.

Barton Sachs



Barton Sachs, M.D., professor in the Department of Orthopaedics, is the winner of the 2017 Admiral Albert J. Baccioco Innovator of the Year Award. The award recognizes

researchers and clinicians who are working to promote commercialization of university intellectual property through new inventions, technologies licensed, patents applied for and new startups formed. It is the highest honor awarded by MUSC's Foundation for Research Development.

AROUND CAMPUS

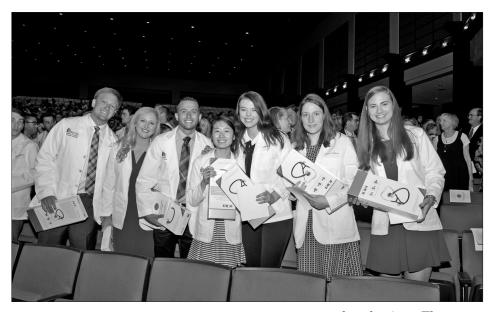


photo by Anne Thompson

Members of the College of Medicine's incoming Class of 2021 display new stethescopes presented to them during the annual White Coat Ceremony held Aug. 19 at the North Chas. Center for Performing Arts.

Terry Steyer



Terry Steyer, M.D., professor and chair of the Department of Family Medicine, has agreed to serve as chief of the MUSC Health Primary Care ICCE and the executive leader of Carolina

Family Care. Steyer has served as a key member of the Primary Care ICCE since its inception.

Patrick Wamsley



Patrick Wamsley, chief financial officer for MUSC, was recently elected president of the Southern Association of College and University Business Officers. SACUBO, supports and helps

to advance the goals of college and university business initiatives and is comprised of 700 institutions and organizations in the southeastern U.S.

EVENTS

Red Cross Blood Drive

An American Red Cross Blood Drive will be held from 10 a.m. to 3 p.m., Friday, Sept. 15, at the Institute of Psychiatry, 4-South. The Red Cross needs 10 Power Red donors. Contact Bonnie Jones at jonesb@musc. edu or 792-6341. Visit http://www.redcrossblood.org/donating-blood/types-donations/double-red-blood-cells-donation for more information.

Heart Walk on Sept. 30

The American Heart Association Heart Walk will be held on Sept. 30 at Riverfront Park. MUSC now has 26 MUSC teams and 106 participants registered. MUSC has set an overall goal of raising \$250,000 to help the AHA build a healthier Lowcountry, and we need your help in raising these life-saving funds. Can't make the walk? Please consider donating to a team or an individual. Register online today. Visit http://www2.heart.org/site/TR?fr_ id=2433&pg=company&company id=17937 to view MUSC Health's Heart Walk website and the teams. To register as a Team Captain, click the red "Create a Team" icon and follow the prompts to complete your registration.

Carnival Week at IOP

The Central Inpatient Programming Service at the Institute of Psychiatry seeks volunteers to help for Carnival Week, Oct. 24 to Oct. 26, 11:30 a.m. to 1:30 p.m., IOP park area. Call Jamie Lupini, lupinijm@musc.edu, 792-2194.

THE CATALYST

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Call for honorary degree nominations, May 2018

The Office of the Provost is requesting nominations for individuals to receive honorary degrees from MUSC to be awarded at the May 2018 Commencement.

The honorary degree is one of higher education's most significant accolades. MUSC's honorary degrees are aimed at recognizing and honoring distinguished individuals who have made an extraordinary and

positive impact in education, science or health care, in the state of South Carolina, MUSC, or nationally.

We seek nominations in one of the following categories: Contributions to education, science and/or health care; Contributions to the state of South Carolina or MUSC Contributions to the nation. Submit nominations via email to Robin Hanckel at hanckelr@musc.edu, by Oct. 15.

MUSC Urban Farm to dedicate Ark of Taste garden bed

The year 2017 marks the fifth anniversary of the MUSC Urban Farm, a living classroom where students, faculty, staff and the community come together to explore the connection between food and health through hands-on learning about the many varieties of vegetables, fruit and herbs grown in South Carolina. To celebrate this significant milestone, several events are planned throughout the fall, beginning with a special work and learn event in partnership with Slow Food Charleston.

On Saturday, Sept. 16 from 10 a.m. until noon, families and individuals are invited to join Slow Food Charleston in partnership with the Office of Health Promotion for a special work and learn at the MUSC Urban Farm to plant the newly dedicated Ark of Taste garden bed. The Ark of Taste is a living catalog of delicious and distinctive foods facing extinction. By identifying and championing these foods, we keep them in production and on our plates.

Supporting the network of producers who promote the propagation of diverse, heirloom and historically significant crops is integral to the sustainability of our food systems. As part of Slow Food Charleston's commitment to support the Ark of Taste list, which can be found at https://www.slowfoodusa.org/ark-of-taste-in-the-usa, this programming initiative will further the conversation of how historically significant crops fit into our Lowcountry food shed.

First Name Basis Wood Fired Fare will set up shop at the Urban Farm from 11 a.m. until 2 p.m., selling pizza with greens and herbs from the garden. At 11 a.m., children can take part in a dough-stretching demonstration with Amanda Click before ordering lunch. There will also be a seed bomb station where volunteers can take wildflower seeds home, and Slow Food board members will be on hand with information on the Ark of Taste and how to get involved in the Slow Food movement.

Slow Food Charleston is part of the global slow food network of over 100,000 members in more than 150 countries. Through a vast volunteer network of local chapters and youth and food communities, we link the pleasures of the table with a commitment to protect the community, culture, knowledge and environment that make this pleasure possible. The slow food revolution is made up of a diverse group of people all with the mission of propagating good, clean and fair food for all.

SATURDAY, SEPT. 16

What —Planting celebration and Work & Learn with the launch of the MUSC Urban Farm's new Ark of Taste-dedicated bed, with lunch available by First Name Basis Wood Fired Fare. http://www.firstnamebasisco.com/

Where — MUSC Urban Farm, 40 Bee Street

When — Work & Learn from 10 a.m. until noon, with lunch available from 11

MUSC Health & Well-Being

By Susan L. Johnson, Ph.D., MUSC Office of Health Promotion



a.m. until 2 p.m.

Why — The MUSC Urban Farm is an ideal platform for discussion and action involving the Ark of Taste, reaching a diverse audience with the established network and support of the MUSC and Charleston communities. The MUSC Urban Farm is celebrating a five-year anniversary this fall, and Slow Food Charleston is honored to be included in the evolution and future of the community green space.

Stay tuned for information on upcoming MUSC Urban Farm 5-Year Anniversary events. Visit www.musc. edu/urbanfarm.

September "Health Focus" schedule on SC Public Radio

Visit www.southcarolinapublicradio.org/programs/health-focus

Sept. 4 — Segment #1
Topic: CAR-T Cell Therapy
Guest: Dr. Chrystal Paulos,

associate professor in the Department of Microbiology and Immunology and endowed Peng Chair, Department of Dermatology

Sept. 4 — Segment #2

Topic: Keeping Children & Teens Safe Around Water

Guest: Dr. Keith Borg,

associate professor of pediatrics and emergency medicine and pediatric emergency physican at MUSC Children's Health

Sept. 11— Segment #1
Topic: New Developments in Organ
Transplantation
Guest: Dr. Carl Atkinson,
co-director of the Lee Patterson Allen Transplant

Immunobiology Lab at MUSC

Sept. 11 — Segment #2
Topic: Healthy Sleep Routines for School-Aged
Children and Teens
Guest: Dr. Concetta Maria Riva,

pediatric sleep specialist and director of the Sleep Medicine Program at MUSC Children's Health

Sept. 18 — Segment #1
Topic: Polypharmacy and Older Adults
Guest: Dr. Russell Blackwelder,
assistant professor and the director of geriatric
education, Department of Family Medicine

Sept. 18 — Segment #2
Topic: Pulmonary Fibrosis
Guest: Dr. Lynn Schnapp,
professor and director of the Division of Pulmonary,
Critical Care, Allergy and Sleep Medicine

Sept. 25 — Segment #1
Topic: Alcohol Liver Disease
Guest: Dr. Don Rockey,
a gastroenterologist and hepatologist and chairman,
Department of Medicine

Sept. 25 — Segment #2
Topic: Preconception Health
Guest: Dr. Angela Choi,
assistant professor and obstetrician and gynecologist
at MUSC Women's Health

Office Of the PRESIDENT

To the MUSC Family,

As relief efforts continue in response to the devastating effects from Hurricane Harvey, we are reminded of the importance of our strategic pillar to build healthy communities, which should innately extend beyond our state lines. Charleston and its surrounding communities are no strangers to hurricanes and floods, which makes us even more compassionate and willing to provide outreach to other communities in need. Compassion is one of our core values, and it is ultimately what leads us to leave a lasting impact on those we serve.

One of the challenges of disaster relief efforts is connecting the donations and resources with the actual needs on the ground in order to have the intended impact. In response to the crisis and effects of Hurricane Harvey, along with recent requests on how to help, we would like to support Texas Governor Greg Abbott's recommendation to donate to the American Red Cross. If you feel inclined to make a financial contribution, please click the "donate now" button located on the MUSC home page, which is directly linked to supporting the needs related to Hurricane Harvey.

For other options to help those in need, the following resources indicate organizations that are accepting support and donations for victims of this tragedy:

Local and National Relief Organizations

- ☐ The Salvation Army
- ☐ Save the Children
- ☐ Southern Baptist Disaster Relief
- ☐ Heart to Heart
- ☐ Samaritan's Purse

Food Banks

- ☐ Feeding Texas
- ☐ Houston Food Bank

Pets

- ☐ The Human Society
- ☐ SPCA of Texas

Other

- ☐ GoFundMe's Hurricane Harvey Relief Page
- ☐ GlobalGiving

We will continue to be engaged and will keep the MUSC community informed as opportunities to assist become apparent. In the coming days and weeks, we ask that you keep Texas and all those impacted in your thoughts and hearts. Thank you for all you do and for your dedication to the lives we touch.

Yours in service,

The MUSC Leadership Team
Office of the President Communications

OATH OF A PHARMACIST



Photo provide

First-year pharmacy student Sheridan Boyd recites the Oath of a Pharmacist at the conclusion of the College of Pharmacy's 2017 White Coat Ceremony at Baruch Auditorium Aug. 17.

Thursday and Friday, NOVEMBER 2-3, 2017

Keynote Speaker: Eric James, Ph.D., November 2, 2017
Poster and Oral Sessions: November 3, 2017
Abstract Deadline: Friday, September 22, 2017 @ 11:59 PM
No abstracts will be accepted after this date

Links to submit an abstract as well as information about poster and oral presentations can be found by following the Research Day link on the College of Graduate Studies home page:

http://academicdepartments.musc.edu/grad

MUSC Research Day 2017 is open to all students, postdocs, residents, fellows, and research specialists at MUSC and students, postdocs, residents, and fellows at other institutions who have participated this past year in programs of research at MUSC.

One abstract per presenter is allowed and team presentations are NOT allowed.

Oral and poster formats are available.

MEET BRYAN



Bryan Wood

Department; How long at MUSC

Public Safety — Emergency Management; 4 months

How are you changing what's possible at MUSC

I have always taken a certain pride and commitment to excellence in my work and have worked 20 years ensuring that people are safe and secure, and now I am bringing that same commitment to MUSC and the Charleston community.

Family and pets

Wife, Kelly; son, Liam; daughter, Madison; and two dogs, Momo and Chachi

Best advice you can share about preparation during hurricane season

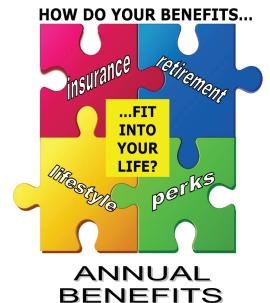
Have a plan with your family, friends and neighbors. Discuss what everyone would do in the event of a serious hurricane.

Dream vacation

Take my family to Ireland and retrace the steps of my and my wife's ancestors

Favorite quote

Fortune favors the bold. — Latin Proverb



BENEFITS FAIR

Colbert Library Portico Friday, September 22nd 8:30 a.m. - 2:00 p.m.

MUSC employees are invited to attend the Benefits Fair prior to Open Enrollment to discuss retirement, insurance, investments and other options with over 40 vendors!

In addition, employees will receive health assessments, great memberships, and discounts. Don't miss the exciting door prizes and raffles!

> Benefits Counselors will be available during the fair to process Open Enrollment changes.



Space: 16 sunrises a day and the odor of an overdone dessert

Astronaut's speech, idea for conducting research in space captivate MUSC scientists

By Helen Adams

adamshel@musc.edu

"Space smells like burnt cookies." The man who shared that surprising fact, astronaut Doug Wheelock, would know. He's spent 178 days in space, including stints on the International Space Station, the Discovery and the Soyuz.

The source of that bakery-like smell he described to an audience that included about a dozen researchers from MUSC? "It's from the reaction of atomic oxygen that's trapped in the fibers of your suit," Wheelock said.

He shared another fun fact, this one about working on the International Space Station: "We're orbiting the earth every 90 minutes," Wheelock said. "So every 45 minutes, you see a sunrise or a sunset. You get 16 sunrises and 16 sunsets every day."

His space stories were part of a pitch by NASA and the Center for Advancement of Science in Space,



NASA astronaut Doug Wheelock talks with MUSC researchers Steven Carroll, far left, Carol Wagner and John Baatz. Tara Ruttley, associate program scientist for the International Space Station, is on the far right.

Photo by Dawn Brazell

encouraging researchers to think not only outside of the box but also outside of the planet and consider conducting research on the International Space Station. The event was hosted by the nonprofit South Carolina Research Authority in Summerville.

The ISS orbits Earth at more than 17,000 miles per hour, serving as a laboratory for learning about living

and working in space. It's the size of two Boeing 747s and contains lab modules from the U.S., Russia, Japan and Europe.

Cynthia Bouthot directs commercial innovation and sponsored programs at CASIS, a government-funded

See **SPACE** on page 11

IMAGINE NATION

A MESSAGE FROM Darlene Shaw, Ph.D., Chief Instit. Strategy Officer

We have reached the midpoint in our Imagine MUSC 2020 journey, and we would like to take a moment to celebrate everything that people and programs throughout our community have done in connecting their work with our strategy thus far. It's been amazing to see the different ways our MUSC values of Compassion, Collaboration, Respect, Integrity, and Innovation are at work throughout our organization. Looking ahead, we want to be sure that MUSC patients and families receive the best and most compassionate care anywhere, MUSC's discoveries change the future of health care, MUSC is a national model for a diverse and inclusive community, MUSC is a recognized innovator in health sciences education and lifelong learning and MUSC is a transformative health and wellness leader.

As we continue on our journey, we should reflect on how the work we do aligns with our strategy and goals. Email strategy in action examples at imagine2020@ musc.edu or by posting on Yammer using the #Imagine2020 hashtag.

IMAGINE Connection — What Respect Means to You

"Respect means meeting people exactly where they are." – Cody Michael Henderson, Dept. of Diversity, Equity and Inclusion.

"Respect means honoring other people and treating them with care and courtesy." – Dianna Pelay

"Honoring others' decisions or opinions. With respect, you are not thinking about yourself, you are thinking about people around you." – Rhajon Hicks, Trident Technical College, MUSC Summer Youth Employment Program

"Respect includes allowing co-workers, especially new ones to 'save face' by correcting them privately." – Helen Wells

IMAGINE MINUTE

An innovative new program at MUSC is rooted in the value of the storytelling and experiences of our patients and families. In this month's Imagine Minute, Caroline DeLongchamps, manager of Patient- and Family-Centered Care, and Angela Egner, chief learning officer, explain how the collaborative Family Faculty Program is perfectly aligned with our Imagine MUSC 2020 goals of Patients and Families First and Innovative Learning and is an example of what respect looks like at MUSC.

UPCOMING EVENTS

September is Hispanic Heritage Month

- ☐ Sept. 14 Coffee Hour with Dr. Gustavo Leone, Hollings Cancer Center director, 8:30 a.m., HALO Restaurant, upstairs
- ☐ Sept. 22 Employee Benefits Fair
- ☐ Sept. 26 Science Cafe: Take my breath away: What happens when the lungs get injured, presented by Dr. Lynn Schnapp, at 5:30 p.m. at Charleston Beer Works, 480 King Street, upstairs
- ☐ Sept. 30 Lowcountry Heart Walk

<u>lmagine</u>





Saluting Finance & Administration's Excellence, Performance



Finance & Administration Division employees Scott Muetz, from left, Raj Bhagani, Andrea Cumberland, Lester Dempsey, Erika Hutzler, (second row) Rose Marie Fancy, Terry Denmark, Arlo Walker, Sandra Gethers, Jack Molina and Ernest Williams were recognized as 2017 Employee of the Year nominees at the Aug. 16 employee appreciation event.

Lisa Montgomery recognizes 2017 Cindy Garmon PEER of the Year winner James W. Pinckney Jr., who works in University Mail Services.





thotos by Cindy Abole

Finance and Operations Executive Vice President Lisa Montgomery congratulates Public Safety Officer Scott Muetz for his leadership, professionalism and compassion as the 2017 F&A's Employee of the Year winner. Muetz assisted a homeless veteran by connecting him with services from the VA Medical Center and other support.

PROFESSIONAL Continued from Page One

search warrant, but MUSC has hospital security and public safety in the Emergency Department 24/7, so they would be fully engaged when an agency comes in with



Boyd

a warrant. We would never allow that situation to happen, where a nurse or staff member was dragged out in handcuffs," he said.

The Utah nurse, with the backing of hospital administration, would not allow the blood to be taken without a warrant or consent from the patient. But that in no way dissuaded the officer. The video of the incident shows the detective threatening the nurse, saying, "I either go away with blood in vials or body in tow."

"Common sense should have prevailed here. There was no reason to drag that nurse out in handcuffs," Kerley said. "While it appears that one other officer was concerned about the validity of the arrest he made, no effort was made to control the arresting officer."

MUSC Health Chief Security Officer Kevin Boyd agreed. "That is correct, and it's important to recognize this was one rogue officer — a 'my way or no way' guy — who finally got caught. This is not a systemic problem at the Utah Police Department or in South Carolina or anywhere. You never hear of anyone locking up a clinician for not giving

them what they want. He was just one of those outliers in law enforcement. Thank goodness there were body cameras, so people could really see what was going on."

Boyd further underscored Kerley's point. "We would have verified the warrant and made sure it was authentic. If they didn't have one — well, then that's the end of the conversation. 'Gentlemen, come back when you have a warrant,' is what they would have been told."

MUSC Health Chief Operating Officer Matt Wain is using the Utah case as a chance to review MUSC's protocols.

"That was difficult to watch," Wain said of the video. "I agree with Chiefs Kerley and Boyd — I don't think this would ever happen here. One of the things we recognize is the need for our bedside care, our security and our public safety to work seamlessly together. We've invested a significant amount of training so there's appropriate level of handoff among those caring for patients and families when a crisis arises," Wain said.

"I believe that enables us to appropriately respond in crisis patient situations. I also believe we have tremendous professionalism with MUSC Health, including our nursing, which



Mansfield

has been recognized nationally for excellence. I have the utmost confidence in our care team's ability to handle situations appropriately and for our organization to support those officers or bedside care professionals with the decisions they make in moments of crisis."

Amid a wave of growing criticism, nurses around the country are following the story intently, and the American Nurses Association demanded immediate action be taken against the arresting officer. "What occurred is simply outrageous and unacceptable," ANA president and former MUSC Chief Nursing Officer Pam Cipriano wrote in an emailed statement. "Nurse Wubbels did everything right."

Jerry Mansfield, Ph.D., RN, MUSC Health executive chief nursing officer and chief patient experience officer shares her assertion. "The first thing that should have happened was that security should have been called," he said.

"This is an important issue, one at the forefront of the national stage. People are reading about it in papers and on Facebook, and it has become a platform for people to make statements about patient care. Really, serving as a patient advocate is first and foremost a nurse's responsibility, and that's what the nurse in Utah was doing. Somehow, someway it got out of hand. Our people know to notify the appropriate people internally before something like that escalates in the wrong direction."

It's clear to frontline staff, Mansfield said, that calling for assistance is the right thing to do any time there is something alarming or suspicious. "We have a wonderful security team here, and we have a very positive relationship. Plus, there are always hospital administrators

on call and house supervisors as well – any and all of them would be great if a nurse is feeling uncomfortable and needs to bring that to someone's attention."

Whether it's related to patient care or visitors or concerns about contraband in the environment, Mansfield said, his people have no hesitation calling the proper authorities. "And in light of this recent situation, if someone shows up and says they are here to do something, always double check with our own internal security to make sure it's true."

Boyd said he and his team work with the nurses and other clinicians in the best interest of their patients.

"We do these types of things every day," he said. "Whether it's a DUI, a child-custody situation, assessing paperwork to ensure things are legitimate – whatever is needed – it runs the gamut. A situation like this would never happen at MUSC. It shouldn't happen anywhere."

To report an emergency or suspicious activity, call Public Safety at 792-4196.

Protect yourself from theft

MUSC Department of Public Safety is giving notice about an ongoing threat to personal property thefts on campus.

Recently, there has been an increase in the number of thefts of personal property from vehicles in parking garages on campus, specifically the Jonathon Lucas Garage and the CMH Garage on Charleston Center Drive.

Secure personal property such as purses, backpacks, cell phones, etc. Report any suspicious activity by calling MUSC Public Safety at 843-792-4196 or via the MUSC LiveSafe® App.

SPACE Continued from Page Six

"We're looking at the International Space Station as the ultimate innovation platform that is open and available for use."

Cynthia Bouthot

program that manages the U.S. lab on the space station. "We're looking at the International Space Station as the ultimate innovation platform that is open and available for use," she told the researchers. "The absence of gravity enables quite a bit of phenomena that vou can actually learn fundamental knowledge about."

The earthbound researchers aren't being asked to become astronauts. The idea is for them to propose studies to be carried out by astronauts, research that

might benefit from the microgravity or other extreme conditions on the space station.

Wheelock said it's a chance to see science in new ways. "Here, our minds are trapped in two dimensions because everything is being sucked to the floor by gravity. When we do our research in two dimensions, complacency sets in. But what if you go to a place where it's not so predictable?"

Research areas on the ISS include health, manufacturing, technology and aerospace, and the astronauts have worked with companies ranging from Target to Eli Lilly. Within the field of health, CASIS suggests that the ISS be used to find new ways to target Parkinson's, Alzheimer's and Lou Gehrig's diseases; discover biomarkers; work on ending the organ shortage through such methods as 3-D bioprinting; produce vaccines; make medical device implants; and produce monoclonal antibodies to fight cancer.

The ISS helps move research forward by offering extreme conditions, including microgravity, for testing ideas and

improving existing treatments and devices. The MUSC researchers were fascinated by the possibilities. Some early ideas include:

☐ Kidney specialist Josh Lipschutz, M.D., a physician-researcher who directs the Renal Division at MUSC, wants to use the ISS to study how gravity may affect cells and tissue in organs.

☐ Demetri Spyropoulos, Ph.D., a professor in the Department of Pathology and Laboratory Medicine, is interested in studying the impact of microgravity on digestion, metabolism and the microbiome. He and professor John Baatz, who's with the Department of Pediatrics and Neonatology, also want to talk with NASA about how their company might help the space agency improve some existing research and cut

☐ Mark Hamann, Ph.D., a professor of drug discovery, is interested in exploring the impact of zero gravity and increased carbon dioxide exposure on people and plants.

Another researcher who specializes in cell biology but is also interested

in stress reduction, Sundaravadivel Balasubramanian, asked Wheelock how astronauts handle stress in space.

"I never really thought about the physical stress," Wheelock answered. "I was alarmed at the emotional stress level. I was shocked, although you know hundreds of people are going to work every day to keep you flying. The feelings of isolation and separation come on fairly quickly, within a couple of weeks. You look out the window and say, 'There's my planet and I'm not there.' Psychologically, you start to feel the separation."

But he said they're trained to keep stress from becoming overwhelming. "Staying in the present. There's nothing more important than what you're doing right now. There should be nothing in your sight except what you're doing right now. It's hard for us to do as humans - stay in the present. We brief that, we train that, we talk about that and we do that in practice."

Outside the building where Wheelock spoke, NASA had a trailer containing the "Driven to Explore" exhibit. MUSC researcher Ian Guz checked it out. "I want to see the moon rock," she told guide Crawford Jones. "It's right here," he showed her.

"That's so cool," the self-described "science geek" said, a big smile on her

That blend of joy and awe came through when Wheelock spoke, too. "In 2007 I got a chance to launch on the space shuttle Discovery," he said during his speech.

"I remember going out and strapping in, about two and a half hours before the launch. And then we're lying in there on our backs, ready to go. The last 10 minutes go by really fast. I knew that soon, I'd either be floating around in space or I'd just be another name of an explorer in the history books. Very scary moment for me. When I got to space and looked out the window, it was just amazing."

The MUSC researchers say it would be amazing to work with people such as him. Lipschutz, the kidney specialist, couldn't resist a little space pun when discussing his research ideas: "I hope my proposal flies."



Students and Post Doctorates who are without a safe location to evacuate are responsible for registering for assistance. Students will not be allowed to stay on campus if a mandatory evacuation is called. If you cannot evacuate yourself to a safe location, you will be transported from the university to a community shelter.

Hurricane preparedness at MUSC is as easy...

Register for evacuation assistance online at:

musc.edu/spsd/hurricane

Register for online at:

information during an emergency:

musc.edu/weatheremergency or call (843) 792-MUSC