NASA Astronaut Anne McClain delivered a special Good Night Lights greeting to the children at Hasbro Children’s Hospital from aboard the International Space Station orbiting 250 miles above the Earth. [PHOTOS: NASA]

‘Magic Minute’:
International Space Station sends ‘Good Night Lights’ greeting to Hasbro Children’s Hospital

MARY KORR
RIMJ MANAGING EDITOR

“Right now we are flying 250 miles above Earth aboard the International Space Station,” NASA Flight Engineer Anne McClain told the children gathered in the fifth-floor playroom of Hasbro Children’s Hospital last Wednesday night, in a special extra-terrestrial surprise greeting.

McClain has been on the International Space Station (ISS) since December and will remain until June, with five fellow astronauts. They have six sleeping quarters, two bathrooms, a gym, and a 360-degree view bay window.

“My crewmates and I are on a six-month expedition. While we are here we will conduct hundreds of scientific experiments to explore and challenge the boundaries of what we know,” McClain told those gathered at Hasbro in a pre-recorded video.

Good Night Lights is a hospital and uniquely Rhode Island tradition created several years ago by hospital volunteer and artist/cartoonist Steve Brosnihan. At 8:30 p.m. every night, Rhode Island organizations, businesses and universities send

A patient at Hasbro Children’s Hospital listens to Astronaut McClain during the event. [PHOTO: BILL MURPHY/LIFESPAN]
The Good Night Lights program takes place every night at Hasbro. [PHOTO: BILL MURPHY/LIFESPAN]

flashing light signals toward Hasbro to show patients they care. Patients gather in rooms at the hospital for this “Magic Minute” and flash lights back out to the community in response.

The space station greeting was arranged by Brosnihan through the efforts of a fellow Rhode Islander, Brian Ramos, who works at NASA.

In the spirit of Good Night Lights, McClain illuminated one of the many areas of scientific study Expedition 58/59 is conducting to the children: replacing fluorescent lights with LEDs with adjustable intensity and color, to see if the latter can improve the crew’s sleep cycles, adaptation and performance.

“So to all of you on Earth shining a light on this Magic Minute, keep up your efforts. Everyone on the International Space Station wishes you a wonderful evening on our beautiful planet Earth. Good Night Lights from the International Space Station.”

And with that farewell, she spun in circles to the delight of her Hasbro audience and waved them all a good night. ✨

Rhode Island Hospital President Margaret M. Van Bree, MHA, DrPH, listens to the greeting from the International Space Station. [PHOTO: BILL MURPHY/LIFESPAN]

Flight Engineer Anne McClain collects samples for Marrow, a long-term investigation into the negative effects of microgravity on the bone marrow and blood cells it produces. The investigation may lead to development of strategies to help prevent these effects in future space explorers, as well as people on Earth who experience prolonged bed rest. [PHOTO: NASA]

A week of scientific study aboard the space station

The NASA.gov website regularly updates and summarizes the scientific aspects of the current International Space Station Expedition 59 in its space station science highlights.

In addition to two spacewalks last week, the Expedition 59 crew was busy studying the human brain and an astronaut’s wake-sleep cycle in space.

Flight Engineers Nick Hague and Christina Koch spent time last week to research how blood flows to the brain in microgravity. Koch took Doppler waveform measurements of her arterial blood pressure for the Cerebral Autoregulation study. Hague then closed out the brain blood-flow experiment and stowed its gear in the Kibo lab module.

Astronaut David Saint-Jacques of the Canadian Space Agency, worked on a wearable device, the Actiwatch Spectrum (AWS), which measures an astronaut’s daily wake-sleep cycle, or circadian rhythm. The AWS provides doctors insights into sleep quality, sleep onset and ambient light quality aboard the orbital lab.

Flight engineer Anne McClain, in addition to a spacewalk to swap out batteries on ISS, also worked on a science freezer and trashed obsolete ultrasonic hardware designed to detect pressure leaks.

Hague spent a couple of hours one morning in the Kibo lab module measuring his arterial blood pressure using waveform data. The results will inform the Cerebral Autoregulation experiment that observes the brain’s blood vessels in microgravity.

Hague then joined Koch and collected leg, shoulder and back measurements for the Myotones muscle study in the Columbus lab module. Results could improve muscle rehabilitation techniques on Earth and in space.
RIH awarded $1.6M from NIH to study effectiveness of providing MAT, care at pharmacies to people with opioid use disorder

Will partner with pharmacy chain Genoa, treatment provider CODAC, URI, state health agencies

PROVIDENCE – Rhode Island Hospital has been awarded $1.6 million from the National Institutes of Health (NIH) to study the effectiveness of providing medication and care at pharmacies to people with opioid use disorder, compared to usual care pathways at specialty clinics and doctors’ offices. The unusual approach could mean a major expansion of treatment at a time when the crisis is claiming the lives of 120 Americans every day and six Rhode Islanders every week, according to TRACI GREEN, PhD, MSc, co-director of Rhode Island Hospital’s new NIH-funded Center of Biomedical Research Excellence (COBRE) on Opioids and Overdose and a senior research scientist.

“Treatment with medications is a critical tool in the opioid crisis, but can only work if it is available and accessible in the community,” said Green, the study’s principal investigator. “Other countries have long provided addiction care in the pharmacy, and now is the time to learn if it can work here in the United States.”

Currently, patients with an opioid use disorder who are prescribed buprenorphine or naltrexone – two types of Medication Assisted Treatment (MAT) – must see an approved physician or go to a DEA-approved opioid treatment facility for their care. Patients typically then have the medications dispensed at the clinic or go to the pharmacy to pick them up. The trial will allow pharmacists trained in the foundations of addiction treatment to instead be the one, convenient and community-located place patients go for their care and to get their medication. At the “one-stop” community pharmacy visit patients will fill their prescriptions, obtain medication management and receive follow-up care. The goal is to increase patient engagement and make maintenance therapy more convenient and accessible.

The three-year study is being undertaken in collaboration with the University of Rhode Island College of Pharmacy, the Rhode Island Department of Health, CODAC Behavioral Healthcare and the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals. The state had previously received State Targeted Response funding from the federal Substance Abuse and Mental Health Services Administration to pair novel academic research studies about medication treatment improvements alongside “real-world” investments.

Last August, NICOLE ALEXANDER-SCOTT, MD, MPH, director of the Rhode Island Department of Health, signed the first Rhode Island collaborative pharmacy practice agreement for medications for opioid use disorder. It authorizes Genoa Healthcare pharmacies to provide medication treatment in collaboration with medical providers at CODAC, Inc, the largest not-for-profit provider of medications for opioid use disorder in the state and the operator of a similar program at the Rhode Island Department of Corrections. Under this agreement, pharmacists must complete a thorough, 13-hour training in provision of addiction care including the same one buprenorphine prescribers complete; follow the protocols and guidance of the prescriber; and provide timely updates to CODAC on patient experiences.

“If easily accessible treatment for addiction is vital,” said Dr. Alexander-Scott. “This novel approach reflects our philosophy of removing barriers to treatment and recovery for people with opioid use disorder so that we can prevent overdoses and save lives. We know early treatment is effective and starts people on the road to recovery sooner; this helps the patient, their family and their community.”

Green and her team of researchers had previously secured NIH funds to assess what other countries and other U.S. settings were doing with regards

CODAC Behavioral Healthcare expands into Pawtucket

PAWTUCKET – Due to the growing number of people seeking treatment services for substance use disorder, CODAC Behavioral Healthcare has expanded its operations by opening a new location at 600 Pawtucket Avenue, Pawtucket. More than 220 patients will begin receiving care at the new location on March 11, but that number is expected to increase, according to senior leaders at CODAC.

The 3,000-square foot building will allow CODAC staff to offer medication-assisted treatment, tobacco cessation services, counseling, alternative treatments for pain management, ambulatory care, and other holistic approaches to treat addiction, which are not typically available at other outpatient treatment centers.

“This location not only provides more space, it allows us to offer more services that were not previously available at our North Main Street facility,” said LINDA HURLEY, President/CEO of CODAC Behavioral Healthcare. “More importantly, our newest location could attract a new group of underserved individuals in Pawtucket as more people become dependent on opiates at alarmingly high rates.”

Conveniently located on the Providence and Pawtucket border, the Pawtucket Avenue facility will become CODAC’s 9th location in Rhode Island. Hurley says it has enough room to serve 500 to 600 patients in total. The new space features seven counseling offices, two medical offices, and additional rooms for administrative purposes.

Patients will no longer be able to receive medication at the North Main Street location, but it will remain open for other general outpatient services such as counseling.
to pharmacy addiction care and to conduct a pilot of pharmacy-provided medication. That took place during fall 2018, with 11 patients testing out the care model for over a month, paying over 70 visits to Genoa pharmacies. Genoa has six sites in Rhode Island.

“With this model, our pharmacists are able to provide specialized care within the neighborhoods our patients live and work, at times that are convenient to them. Our expectation is that this model will improve patient access to care and lessen the stigma that clients experience in treating substance use disorder, which in turn will help them stay in therapy longer and relapse less often,” said Genoa Healthcare CEO MARK PETERSON.

“What is so promising about this new project is that it will make options for treating opioid use disorder more accessible in a number of settings,” said LINDA HURLEY, president and CEO of CODAC. “For example, people who live in rural areas, far from the nearest opioid treatment provider, will be able to receive medication at their community pharmacy. Access to care at pharmacies also offers a viable alternative for those who may not need the comprehensive and evidence-based services provided by opioid treatment programs. In the midst of the current opioid overdose crisis, pharmacy-based care has the potential to provide critical – and potentially lifesaving – services to individuals who might not otherwise have received treatment.”

“Pharmacists are the most accessible, yet underutilized healthcare providers that specialize in medication safety and disease state optimization. With fewer than 1 in 5 patients receiving any treatment for opioid use disorder, pharmacists are essential to compassionately manage medication-based therapy in partnership with addiction specialists,” said JEFFREY BRATBERG, clinical professor of pharmacy practice at the University of Rhode Island, academic collaborations officer for the state Department of Health, and a member of the Governor’s Overdose Prevention and Intervention Task Force.

Green, who is leading the study, is an epidemiologist in the Department of Medicine and co-director of the COBRE on Opioids and Oversed, which was established in 2018 to research innovations to address the opioid epidemic. She also serves as an expert advisor to the Governor’s Oversed Prevention and Intervention Task Force and is an associate professor of emergency medicine and epidemiology at Brown University’s Warren Alpert Medical School.

In addition to establishing the COBRE, Lifespan last year opened the Lifespan Recovery Center, a multidisciplinary, evidence-based, recovery-oriented program that meets the full spectrum of medical and social needs of individuals who have opioid use disorders.

**Miriam study supports value of active video games in promoting physical activity**

PROVIDENCE – Research led by a behavioral scientist at The Miriam Hospital is providing further evidence that active video games, such as the Wii and Xbox Kinect gaming systems, can help sedentary individuals achieve more physical activity than traditional exercise.

BETH BOCK, PHD, a research scientist with The Miriam’s Center for Behavioral and Preventive Medicine, presented findings from her research during a presentation in March at the annual meeting of The Society of Behavioral Medicine (SBM).

Bock’s research team, in a randomized controlled study, assigned healthy, yet sedentary people to one of two groups—one that engaged in traditional exercise on treadmills and stationary bikes and another that played video games that required moderate to vigorous aerobic intensity. Their effort was tracked with heart rate monitors. Researchers followed up with the participants at the end of the 12-week program and again six months later to assess their physical activity.

Bock’s research found that those in the video game group engaged in more minutes of moderate to vigorous physical activity than those that took part in the standard exercise intervention. A recently completed analysis of the follow-up data examined whether the differences between the two groups could be related to psychosocial constructs from Self-Determination theory and Social Cognitive theory.

“People who played the physically active video games continued to do more exercise than the standard group because they got more enjoyment, better management of stress and depressive symptoms, felt more engaged in physical activity and were more confident about their ability to exercise than people doing Standard exercise,” Bock said.

The goal for both exercise interventions was move participants toward meeting national guidelines for aerobic physical activity. Despite the many health benefits associated with physical activity and health risks associated with inactivity, only about half of American adults report being sufficiently active to meet national guidelines, according to the U.S. Centers for Disease Control.

“Even among those who initiate a physical activity program, long-term adherence is a challenge. Approximately half of those who take up a new exercise program stop within the first six months,” said Bock. “There is a continuing need to discover effective approaches that not only encourage physical activity uptake, but also promote the continued maintenance of regular physical activity.”

The paper Bock will present at the SBM annual meeting is titled “Psychosocial Mediators of Physical Activity Using Exercise Video Games: Wii Heart Fitness.” The trial was supported by a grant from the National Heart, Lung and Blood Institute of the National Institutes of Health under award R01 HL109116 to Dr. Beth C. Bock.
IN THE NEWS

Bryant University PA Class of 2019

SMITHFIELD – On March 23, 2019, Bryant University’s School of Health Sciences held the commencement ceremony for the Physician Assistant (PA) Program, its third graduating class since the master’s program was established in 2015.

PA Program Director Robert Jay Amrien, MPAS, PA-C, (wearing his academic robe) offers a toast to the 40 newly-graduated PAs wearing their white coats. Students who completed 10 weeks of clinical rotations at LBJ Tropical Medical Center in American Samoa wore ula pu’a. Traditionally a chief’s ornament, the kakui nut necklaces are now given to honor achievement in Samoan celebrations.
New EMS data indicate continued need for community naloxone use

Report released as Rhode Island remains on downward overdose trend

New Rhode Island Department of Health (RIDOH) data indicate that more than a third of the opioid overdose calls to which Emergency Medical Services (EMS) responded in Rhode Island in 2018 occurred in public places. Public health leaders are again urging all Rhode Islanders who are comfortable doing so to carry naloxone, the overdose reversal medication.

The data, published on March 1, 2019 in the Rhode Island Medical Journal, indicate that 34.2% of the opioid overdoses that EMS responded to in 2018 occurred in public places. That figure was 29.6% in 2016. Examples of public places include streets, parking lots, restaurants, stores, and beaches.

“Naloxone can be purchased over the counter at pharmacies throughout Rhode Island, and it is as easy to use as nasal spray,” said Director of Health NICOLE ALEXANDER-SCOTT, MD, MPH. “We are starting to make some progress in addressing the drug overdose crisis. However, as this report demonstrates, this is a changing epidemic. With so many overdoses happening in everyday places, and sometimes in plain sight, everyone can play a role in preventing overdoses and saving lives.”

For the first 10 months of 2018, Rhode Island saw a 6.1% decrease in opioid-related overdose deaths, compared to the first 10 months of 2017. A total of 324 Rhode Islanders died due to drug overdose in all of 2017. Rhode Island’s 2018 overdose data should be finalized in the coming weeks, as toxicology results are still pending for many of the deaths that occurred in November and December.

“When someone overdoses on an opioid, they need help immediately. If naloxone is administered quickly, it can reverse the overdose effects, usually within minutes,” said JASON RHODES, MPA, AEMT-C, Chief of the Center for Emergency Medical Services at RIDOH. “By carrying naloxone and using it when it is needed, everyone has the ability to be a first responder and save a life.”

A Good Samaritan law in Rhode Island protects people from legal liability if they are making a good faith effort to assist a person in a medical emergency, including a suspected overdose.

The lead authors of the study published in the Rhode Island Medical Journal were LEANNE LASHER, MPH, the Program Manager of Opioid Overdose Surveillance at RIDOH; JASON RHODES, MPA, AEMT-C, Chief of the Center for Emergency Medical Services at RIDOH; and SAMARA VINER-BROWN, MS, Chief of the Center for Health Data Health Data and Analysis and Public Health Informatics at RIDOH.

Governor Gina Raimondo’s Overdose Prevention and Intervention Task Force is co-chaired by DR. ALEXANDER-SCOTT, Director REBECCA BOSS of the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH), and TOM CODERRE, Senior Advisor to Governor Raimondo.

The data in the article were compiled as a result of updated regulations for EMS agencies that were enacted in January 2019. EMS professionals now must upload patient care reports from EMS incidents within two hours of completing a call. RIDOH is working to create a real-time automated overdose outbreak detection system with web-based dashboards and alerts.

The complete article, titled Identification and Description of Non-Fatal Opioid Overdose Using Rhode Island EMS Data, 2016-2018, is available online.

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Thank you.
Butler awarded $12M COBRE grant

Focus will be on clinical-translational brain research

Butler Hospital has been awarded a $12 million, five-year Center of Biomedical Research Excellence (COBRE) grant from the National Institute of General Medical Sciences, part of the National Institutes of Health (NIH).

The overall goal of The COBRE Center for Neuromodulation (CCN) at Butler Hospital will be to address the pressing need for novel treatments for people struggling with neuropsychiatric disease, by understanding and testing methods to change the functioning of brain circuits underlying such illnesses.

“This grant establishes Butler Hospital and The COBRE Center for Neuromodulation as a national leader in this field of translational medicine, expanding both research and clinical application of non-invasive brain stimulation across disorders of brain and behavior,” said BENJAMIN GREENBERG, MD, PhD, principal investigator on the grant, and director of the OCD Research Program at Butler Hospital. “It will unify an interdisciplinary community in clinical-translational research on neuropsychiatric illnesses such as impulsivity, post-traumatic stress disorder (PTSD), and obsessive-compulsive disorder (OCD), all focused on ultimately helping patients by developing new treatments.”

The CCN, co-directed by LINDA CARPENTER, MD, a nationally recognized leader in brain stimulation therapies and research based at Butler Hospital, will provide the platform these exceptional Project Leaders and other early-career researchers need to make important discoveries and transform them into better treatments for patients with neuropsychiatric illnesses. The stimulation methods to be tested are noninvasive, meaning they affect the brain when applied on the scalp (transcranial magnetic and transcranial electrical stimulation); stimulation effects will be assessed with neuroimaging (MRI) and other methods.
**Bill requiring telecommunicator CPR certification for 911 system introduced**

STATE HOUSE – Rep. Mia Ackerman [D-Dist. 45, Cumberland, Lincoln] has introduced legislation that would improve over-the-phone CPR instructions by requiring the 911 system to certify and staff individuals trained in telecommunicator CPR.

The legislation (2019-H 5568) http://web-server.rilin.state.ri.us/BillText/BillText19/HouseText19/H5568.pdf would establish an emergency telephone system call review and quality improvement, and would require at least one 911 system operator trained in telecommunicator cardiopulmonary resuscitation be on duty at all time.

“911 operators are the real first responders and can make the difference between life and death,” said Representative Ackerman. “When CPR starts before the arrival of an emergency medical technician, the person in cardiac arrest is two-to-three times more likely to survive. T-CPR can help untrained callers provide cardiopulmonary resuscitation. It can also remind those who are trained how to provide high-quality CPR.”

Each year an estimated 350,000 sudden cardiac arrest events occur in the United States in an out-of-hospital environment, according to the American Heart Association, which strongly endorses T-CPR-trained 911 operators. Almost all of these events result in a call for help to 911. Without quick intervention in the form of CPR and defibrillation, death becomes more likely.

“Implementing a policy where operators trained in T-CPR are always on duty could save countless lives,” said Representative Ackerman. “Emergency telecommunicators are a vital link in the lifesaving chain, and this legislation will help to ensure that CPR is being performed before emergency medical personnel arrive.”

The bill, which is cosponsored by Majority Leader K. Joseph Shekarchi [D-Dist. 23, Warwick], Julie Casimiro [D-Dist. 31, North Kingstown, Exeter], William W. O’Brien [D-Dist. 54, North Providence] and Camille F.J. Vella-Wilkinson [D-Dist. 21, Warwick], has been referred to the House Committee on Health, Education and Welfare.

**Toxicologist Jason Hack, MD, to speak at Audubon Center on exhibit of his photography**

BRISTOL – JASON HACK, MD, will speak on Sunday, April 14, from 1–3 pm at the Audubon Nature Center, 1401 Hope Street, Bristol on the hidden properties of plants he captures in his floral photographs now on exhibit through April at the center.

“The show is a collection of beautiful poisonous/medicinal/benign flower photographs that I have taken over the last few years,” he said. “Each one is accompanied by interesting information and facts.”

Dr. Hack is Director, Division of Medical Toxicology, at Brown University, where he is a Professor in the Department of Emergency Medicine.

Event details For more information on Dr. Hack’s photography, visit toxinri.com

Monk’s Hood

White Spiral Datura [PHOTOS: JASON HACK, MD]
Women & Infants introduces MAT for pregnant women with opioid use disorder

Women & Infants Hospital has created Moms MATTER (Medication Assisted Treatment to Enhance Recovery). Medication Assisted Treatment (MAT) in pregnancy has been shown to improve birth outcomes among women who have substance use disorders and are pregnant. MAT has proved to be clinically effective and to significantly reduce the need for inpatient detoxification services for these individuals. MAT provides a more comprehensive, individually tailored program of medication and behavioral therapy. MAT also includes support services that address the needs of most patients.

“The ultimate goal of medication assisted treatment is full recovery, including the ability to live a self-directed life,” said ANUPRIYA GOGNE, MD, director of Moms MATTER, psychiatrist in Women & Infants Center for Women’s Behavioral Health. “This unique model of care provides a safe place for pregnant and breastfeeding women with an opioid use disorder to seek compassionate and non-judgmental care in an office-based setting.”

Moms MATTER services include treatment of acute withdrawal for inpatients at Women & Infants Hospital, medication assisted treatment with buprenorphine for opioid use disorder, assistance in caring for babies with neonatal abstinence syndrome (NAS) in collaboration with pediatricians at Women & Infants Hospital, and pain management for opioid-dependent women as an inpatient at Women & Infants Hospital.

In addition to Dr. Gogne, members of the Moms MATTER team include ERICA HARDY, MD, Women’s Infectious Disease Consult Service and Center for Obstetric and Consultative Medicine; NEHA HUDEPOHL, MD, Center for Women’s Behavioral Health; JESSICA PINEDA, MD, Center for Primary Care and Center for Women’s Behavioral Health; ADAM CZYNSKI, MD, Department of Pediatrics; MATTHEW ESPOSITO, MD, Division of Maternal-Fetal Medicine; and case manager ALPHA LAFRANCOIS, LCDP, Center for Women’s Behavioral Health.

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