

NSF awards \$6M to multidisciplinary climate research team from Brown, URI, RIC, RIH

PROVIDENCE – Leading researchers at Brown University, the University of Rhode Island (URI), Rhode Island College, and Rhode Island Hospital are rethinking coastal community approaches to climate change impacts and adaptation. And now, thanks to a new \$6 million federal grant, these Ocean State institutions will partner on ambitious, multidisciplinary five-year project to develop strategies to enhance coastal resilience, particularly during floods.

U.S. Senators **JACK REED** and **SHELDON WHITEHOUSE** announced that Rhode Island will receive the federal funds through the U.S. National Science Foundation's (NSF) Established

"This is a promising project that can help decisionmakers effectively strengthen resiliency in vulnerable coastal areas. I commend Brown, URI, RIC, and Rhode Island Hospital for collaborating on this study, which will provide valuable insight. I will continue championing EPSCOR dollars for Rhode Island and nationally and doing everything I can to strengthen our research infrastructure and help solve pressing challenges like coastal resiliency," said Senator Reed, a senior member of the Appropriations Committee who brought the head of the NSF, **SETHURAMAN PANCHANATHAN, PhD**, to Rhode Island this spring to meet with faculty at URI, Brown, RIC and other re-

search institutions for a firsthand look at how Rhode Island-based researchers are advancing NSF-supported scientific discovery, innovation, and education.

"As evident from EPSCOR's impact, investing in research infrastructure is a powerful catalyst for strengthening our nation's security, competitiveness, and fostering groundbreaking scientific advancements," said Dr. Panchanathan.

"Rhode Islanders are seeing the effects of the climate crisis all around us – from rising sea levels to extreme weather events," said Senator Whitehouse, who created the National Coastal Resilience Fund to invest in resiliency efforts in Rhode Island and across the country. "As we race to lead the planet

to safety from climate change, we must address the urgent challenges facing coastal communities. This federal funding will allow Rhode Island's world-class research institutions to collaborate on boosting resiliency in the Ocean State for generations."

"The concept of the New England 3CRS Hub stems from the fact that in the past, a lot of coastal communities, sometimes in connection with the research institutions, have been addressing solution strategies for resilience on their own," said **EMANUELE DI LORENZO, PhD**, a professor in the Department of Earth, Environmental and Planetary Sciences at Brown who will serve as principal investigator. "This has led in general to a fragmented approach to coastal resilience where individual communities are trying to develop their own strategies and there is often little learning from each other, especially for underserved communities. This hubs aims at building an expert and stakeholder network of people to help waterfront communities share data, tools and human infrastructure to essentially accelerate the process of designing strategies for climate and health resilience."

"The University of Rhode Island is leading critical research in coastal resilience, which has the potential to not only improve but protect the lives of Rhode Islanders and people across the country," said URI President **MARC B. PARLANGE**.



The NSF has invested \$56 million in 11 projects, spanning a total of 21 institutions in 19 jurisdictions, through NSF's Established Program to Stimulate Competitive Research (EPSCoR). [NSF]

Program to Stimulate Competitive Research (EPSCoR) program. EPSCOR is designed to fulfill NSF's mandate to promote scientific progress nationwide. Through the program, NSF establishes partnerships with government, higher education and industry that are designed to effect lasting improvements in a state's or region's research infrastructure, research and development (R&D) capacity and hence, its national R&D competitiveness.

This award for Rhode Island is one of 11 projects totaling \$56 million in EPSCOR funding to receive NSF's Research Infrastructure Improvement Track-2 awards. The federal funds for Community-Driven Coastal Climate Research & Solutions (3CRS) for the Resilience of New England Coastal Populations will develop a community-driven hub for knowledge, data, modeling and human network infrastructure. This project aims to gather data to answer important questions and develop strategies to enhance coastal resilience, particularly during floods.

The \$6 million five-year study will support the following research teams:

- Brown University, \$2,941,689
- University of Rhode Island, \$700,761
- Rhode Island College, \$539,871
- Rhode Island Hospital, \$173,195

“Collaborating with other state partners, we will use this award to expand URI-developed coastal monitoring tools and train the next generation of coastal scientists.”

“We are grateful to Sens. Reed and Whitehouse for their leadership in bringing this important funding to Rhode Island. It’s crucial for the Ocean State to lead the way in developing new approaches to coastal climate resiliency. Rhode Island College is proud to be a part of this effort alongside our fellow institutions of higher learning,” said **JACK WARNER**, president of Rhode Island College.

“Rhode Island Hospital is pleased to be a partner on this grant, which will allow us to further our understanding of the impacts of climate change on coastal communities,” said **DEAN ROYE, MD**, senior vice president for medical affairs and chief medical officer at Rhode Island Hospital. “By studying the health

effects of flooding and developing strategies to enhance coastal resilience, we hope to provide valuable insights that can inform policy decisions and help communities better prepare for future challenges.”

EPSCoR awards are made through merit-based proposal reviews and are designed to ensure competitive U.S. research dollars reach diverse geographic areas, including smaller states like Rhode Island.

Through his work on the Appropriations Committee, Senator Reed has led efforts to ensure Rhode Island’s EPSCoR eligibility since 2004, and now Rhode Island’s current percentage of NSF funding is one of the highest of EPSCoR-eligible states. With this latest award, Rhode Island has now received over \$94 million in EPSCoR funding since 2004 for collaborative research projects. ❖

CDC awards RI \$915K to develop suicide-prevention program for those at high risk

PROVIDENCE – On Aug. 1, Governor **DAN MCKEE** announced that Rhode Island has been awarded \$915,000 in federal funds from the Centers for Disease Control and Prevention (CDC) to develop a coordinated, data-driven suicide prevention program for higher-risk populations.

For the initiative, the Rhode Island Department of Health’s Violence and Injury Prevention Program will convene a new multi-sector partnership, including partners across the Executive Office of Health and Human Services. It will focus on suicide prevention amongst working-aged men (25 to 64), military-affiliated individuals (Veterans, active duty, National Guard), and first responders (public safety officers, firefighters, emergency medical services personnel) who are age 18 or older.

Suicide is a public health crisis in Rhode Island and across the country. In 2021, 121 people died by suicide in Rhode Island, up from 99 suicide deaths in 2020. From 2012–2021, Rhode Island averaged 120 suicides per year. Suicide deaths are more likely to be seen among males and middle-aged adults. In 2019, deaths of

working-age men (ages 25–64) accounted for almost 60 percent of all suicides in Rhode Island.

“Here in Rhode Island, we recognize that suicide is a public health crisis, and it’s on all of us to be part of the solution. This coordinated program is data-driven and unites state agencies to ensure this critical work is done across the whole of government,” Governor McKee said. “I thank the Centers for Disease Control and Prevention for providing these crucial funds to help save lives.”

The comprehensive approach will continue to build on the State’s investment in suicide prevention that began in 2009. Rhode Island will implement Statewide approaches with the goal of reducing suicide-related injuries and fatalities by 10 percent in the identified populations from 2022–2027.

The collaborative effort will also strengthen data and service infrastructure to better understand and address differences in suicide risk among Rhode Islanders. For example, some numerically small populations in Rhode Island – such

as LGBTQ+ people; Native American/American Indian people; people who are survivors of previous suicide attempts; people who are homeless; and people who are survivors of domestic violence – have disproportionately high rates of suicide.

Rhode Island will continue to focus on reducing access to lethal means as a way to lower suicide deaths. In Rhode Island, rates of firearm-related suicides among working-age men increased by more than 12 percent from the period of 2010–2014 to 2015–2019. Additionally, intentional drug overdose deaths, or suicides by drug poisoning, remain a concern.

This new funding is in addition to the \$750,000 Staff Sergeant Parker Gordon Fox (SSG Fox) Suicide Prevention Grant from the US Department of Veterans Affairs that RIDOH recently received to coordinate with the Providence Veterans Administration Medical Center, the Rhode Island Office of Veterans Services, other State agencies, and community partners to address the issues of mental health and suicide among Rhode Island Veterans and their families. ❖

CDC recommends RSV vaccine for infants, some older babies

WASHINGTON, DC – The Centers for Disease Control (CDC) is recommending a new immunization starting this fall to help protect all infants under 8 months and some older babies at increased risk of severe illness caused by respiratory syncytial virus (RSV).

In early August, CDC director **MANDY COHEN, MD, MPH**, adopted the CDC Advisory Committee on Immunization Practices' (ACIP) recommendation for the use of nirsevimab, trade name Beyfortus™, a long-acting monoclonal antibody product, which has been shown to reduce the risk of both hospitalizations and healthcare visits for RSV in infants by about 80 percent.

"This new RSV immunization provides parents with a powerful tool to protect their children against the threat of RSV," said Dr. Cohen. "RSV is the leading cause of hospitalizations for infants and older babies at higher risk and today we have taken an important step to make this life saving product available."

CDC recommends one dose of nirsevimab for all infants younger than 8 months, born during – or entering – their first RSV season (typically fall through spring). For a small group of children between the ages of 8 and 19 months who are at increased risk of severe RSV disease, such as children who are

severely immunocompromised, a dose is recommended in their second season.

Nirsevimab, which was approved last month by the U.S. Food and Drug Administration (FDA), is administered as an injection and provides infants and toddlers with antibodies to protect against severe RSV illness. It provides critical protection during a baby's first RSV season, when they're most at risk for severe illness.

Nirsevimab is expected to be available this fall. Expectant parents and parents of infants under the age of 8 months, as well as those with older babies, should talk with their healthcare providers and request this added layer of protection against RSV this season.

ACIP voted to include nirsevimab in the Vaccines for Children program, which provides recommended vaccines and immunizations at no cost to about half of the nation's children. CDC is currently working to make nirsevimab available through the Vaccines for Children program. Healthcare providers will be a key partner in CDC's outreach efforts. Additional clinical guidance and healthcare provider education material will be provided by CDC in the coming months. ❖

FDA approves first oral treatment for postpartum depression

SILVER SPRING, MD – On August 4, the U.S. Food and Drug Administration approved Zurzuvae (zuranolone), the first oral medication indicated to treat postpartum depression (PPD) in adults. PPD is a major depressive episode that typically occurs after childbirth but can also begin during the later stages of pregnancy. Until now, treatment for PPD was only available as an IV injection given by a health care provider in certain health care facilities.

"Postpartum depression is a serious and potentially life-threatening condition in which women experience sadness, guilt, worthlessness – even, in severe cases, thoughts of harming themselves or their child. And, because postpartum depression can disrupt the maternal-infant bond, it can also have consequences for the child's physical and emotional development," said **TIFFANY R. FARCHIONE, MD**, director of the Division of Psychiatry in the FDA's Center for Drug Evaluation and Research. "Having access to an oral medication will be a beneficial option for many of these women coping with extreme, and sometimes life-threatening, feelings."

The efficacy of Zurzuvae for the treatment of PPD in adults was demonstrated in two randomized, double-blind, placebo-controlled, multicenter studies. The trial participants were women with PPD who met the Diagnostic and Statistical Manual of Mental Disorders criteria for a major depressive episode and whose symptoms began in the third trimester or within four weeks of delivery. In Study 1, patients received 50 mg of Zurzuvae or placebo once daily in the evening for 14 days. In Study 2, patients received another zuranolone product that was approximately equal to 40 mg of Zurzuvae or placebo, also for 14 days. Patients in both studies were monitored for at least four weeks after the 14-day treatment. The primary endpoint of both studies was the change in depressive symptoms using the total score from the 17-item Hamilton depression rating scale (HAM-D-17), measured at day 15. Patients in the Zurzuvae groups showed significantly more improvement in their symptoms compared to those in the placebo groups. The treatment effect was maintained at Day 42 – four weeks after the last dose of Zurzuvae.

The labeling contains a boxed warning noting that Zurzuvae can impact a person's ability to drive and perform other potentially hazardous activities. Patients also may not be able to assess their degree of impairment. To reduce the risk of harm, patients should not drive or operate heavy machinery for at least 12 hours after taking Zurzuvae.

The most common side effects include drowsiness, dizziness, diarrhea, fatigue, nasopharyngitis (the common cold), and urinary tract infection. Use of Zurzuvae may cause suicidal thoughts and behavior. Zurzuvae may cause fetal harm. Women should use effective contraception while taking, and for one week after taking, Zurzuvae.

The daily recommended dose for Zurzuvae is 50mg. It should be taken once every day, for 14 days, in the evening with a fatty meal.

The FDA granted this application Priority Review and Fast Track designation.

Approval of Zurzuvae was granted to Sage Therapeutics, Inc. ❖

RIAG, RIDOH deem The Centurion Foundation HCA application for CharterCARE incomplete

PROVIDENCE – On Aug. 11th, Rhode Island Attorney General **PETER F. NERONHA** and Rhode Island Department of Health Interim Director **UTPALA BANDY, MD, MPH**, the two state regulators empowered to oversee hospital conversions in Rhode Island, notified the parties involved in a proposed hospital conversion involving Roger Williams Medical Center and Our Lady of Fatima Hospital that their application has been deemed incomplete. The two hospitals are operated by CharterCARE.

Under the Hospital Conversion Act (HCA), transacting parties seeking the transfer of ownership of a hospital must first complete an Initial Application which is filed with the Office of the Attorney General and the Rhode Island Department of Health. The two agencies then review the Initial Application for completeness. Following review of the submission from Prospect Medical Holdings and The Centurion Foundation, the

Attorney General and the Department of Health determined that the submitted materials do not contain sufficient information necessary for the State to conduct its review under the HCA.

The parties were notified of the numerous deficiencies in a letter from the Attorney General and the Department of Health. The letter outlined the application's deficiencies, including the lack of detail surrounding the structure of the entities and how the parties intend to achieve the goals proposed in the Application. The applying parties must correct the deficiencies within 30 working days, or on or before September 26, 2023. Information contained in the letter is presumed confidential at this stage of the review.

Once the Application is deemed complete, the Attorney General and the Rhode Island Department of Health will review it under the HCA and issue their decision. ❖

School of Public Health holding 10-year anniversary kickoff event

PROVIDENCE – On Sept. 27th Brown's School of Public Health will begin a year-long celebration on the occasion of its 10th anniversary. The kickoff event will feature a speaking program followed by a reception at 5 p.m. in Alumnae Hall. Exhibits will showcase the school's history and areas of impact, said Dean **ASHISH K. JHA, MD, MPH**, in an August 15 letter to the Brown University community. At the event Dr. Jha will join Brown President **CHRISTINA H. PAXSON**, to explore the past, present, and future vision for public health at Brown.



This photo appeared in a themed issue of RIMJ in June 2013 on the new School of Public Health. It shows Brown's leadership team: Rear, from left, department chairs **Christopher Kahler** (Behavioral and Social Sciences), **Stephen Buka** (Epidemiology), and **Constantine Gatsonis** (Biostatistics). Front, **Ira Wilson** (Health Services, Policy and Practice) and **Terrie Fox Wetle**, inaugural dean. [BROWN, SCOTT KINGSLEY]

In June 2013, the *Rhode Island Medical Journal* (RIMJ) featured a themed issue on the school's inauguration, and the history of public health endeavors in Rhode Island. (<http://rimed.org/rimedicaljournal/2013/06/2013-06-20-bsph-complete.pdf>)

Inaugural Dean **TERRIE FOX WETLE, PHD**, wrote in the introduction to the section:

"The School's mission is to improve population health by conducting research to better understand disease risk factors and effective health promotion, educating future generations of health researchers and policy makers, and providing public service by translating research into public policy and improved practice.

"The nation's newest school of public health, to be established July 1, 2013, boasts research and teaching that is collaborative, multidisciplinary, and innovative. The products of this work have real impact on people's lives."

In his announcement letter of the anniversary, Dr. Jha celebrated the school's history and challenges going forward. "From

revolutionizing how substance use is understood and treated, to guiding people and policymakers through the COVID-19 pandemic, to improving access to public health leadership by establishing the Health Equity Scholars program, our School of Public Health is building towards addressing the pressing public health challenges of our time," Dr. Jha wrote.

"This academic year, we are celebrating our history while looking towards the future. What can we learn from our faculty's groundbreaking accomplishments in the fields of aging, substance use, children's health, biostatistics and health care policy? What do we need to do next to tackle complex challenges such as the impact of climate change on health, information disorders and the erosion of trust in public health, or the opioid epidemic?"

According to the announcement of the anniversary on the school's website, the year's events will include the Dean's Conversation Series, where distinguished speakers from around the world will discuss pressing public health challenge. Registration is available for the kickoff at: <https://sph.brown.edu/events/10-year-anniversary>. ❖

Stanford clinical trial shows advances in brain-computer interfaces (BCIs) in woman with ALS, speech deficit

Participant in Brown, VA BrainGate consortium

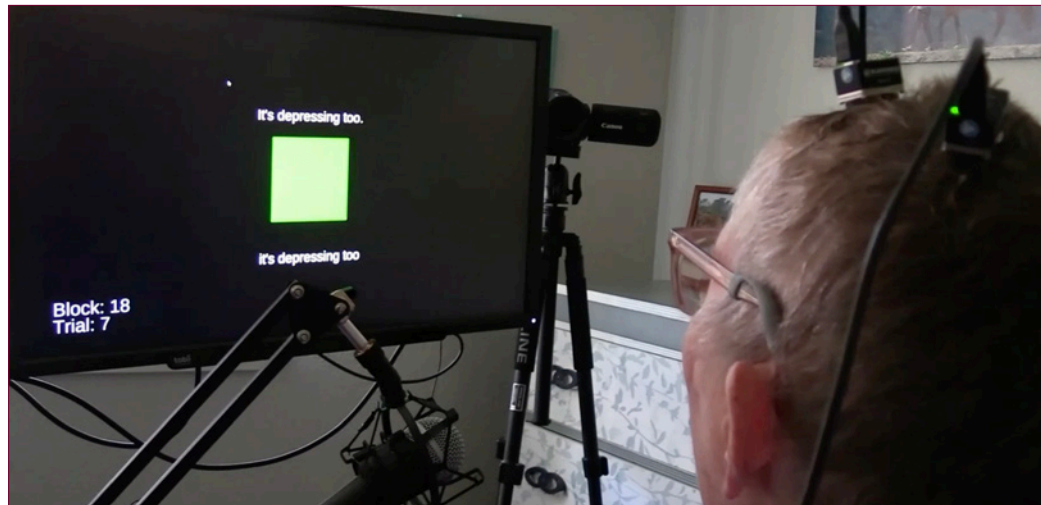
MARY KORR
RIMJ MANAGING EDITOR

On Aug. 23rd, the journal *Nature* published the article by Willett FR, Kunz EM, Fan C, et al, "A high-performance speech neuroprosthesis,"^{1,2} describing the results of a clinical trial at Stanford University, a participant in the multi-institutional BrainGate consortium,³ which demonstrated that a woman with amyotrophic lateral sclerosis (ALS) incapable of intelligible speech, after several months of training sessions, was able to have her brain signals translated into text via a speech brain-computer interface (BCI).

A co-author of the *Nature* study, **LEIGH HOCHBERG, MD, PhD**, a neurologist and researcher affiliated with the Providence VA, Brown University and the Massachusetts General Hospital, is principal investigator and director of the collaborative of clinicians, neuroscientists



Trial volunteer Pat Bennett. [STEVE FISCH, COURTESY OF STANFORD UNIVERSITY/MEDICINE]



Supplementary video from the *Nature* article shows participant during the study. The implanted sensors, square arrays of silicone electrodes arranged in grids, are attached to fine gold wires that emerge from pedestals screwed to the skull, which are then hooked up by cable to a computer.

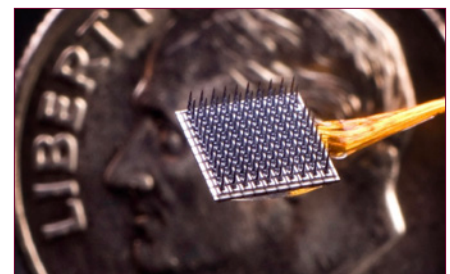
and engineers working to create and advance the usage of BCIs to restore communication, mobility, and independence for those suffering with neurologic diseases, injury, and limb loss.

BCI potential

As described in the *Nature* Abstract on the recent Stanford study: "Speech brain-computer interfaces (BCIs) have the potential to restore rapid communication to people with paralysis by decoding neural activity evoked by attempted speech into text or sound."

The Stanford clinical trial participant, Pat Bennett, 68, was diagnosed in 2012 with ALS. As a result, she can no longer use the muscles of her mouth to speak clearly. The Stanford scientists, in 2022, connected four sensors implanted in Bennett's outer cerebral cortex associated with speech to computers, with software undergoing meticulous adjustments to decode how her brain signals correspond to speech.

According to the Stanford Medicine News Center article by Bruce Goldman, "Brain implants, software guide speech-disabled person's intended words to computer screen,"⁴ describing the trial: "An artificial-intelligence algorithm receives and decodes electronic information emanating from Bennett's brain, eventually



Brain-computer interfaces use tiny electrodes to record signals in the brain. [BRAINGATE.ORG]

teaching itself to distinguish the distinct brain activity associated with her attempts to formulate each of the 39 phonemes that compose spoken English. It feeds its best guess concerning the sequence of Bennett's attempted phonemes into a so-called language model, essentially a sophisticated autocorrect system, which converts the streams of phonemes into the sequence of words they represent."

JAIMIE HENDERSON, MD, who performed the implant surgery and is co-senior author of the paper, said in the news article, "Bennett's pace begins to approach the roughly 160-word-per-minute rate of natural conversation among English speakers. We've shown you can decode intended speech by recording activity from a very small area on the brain's surface."



Frank Willett, PhD, a Howard Hughes Medical Institute staff scientist affiliated with the Neural Prosthetics Translational Lab, shares lead authorship of the study, is shown in this image operating the software that translates Pat Bennett's speech into words on the screen. [STEVE FISCH, COURTESY OF STANFORD UNIVERSITY/MEDICINE]

According to the article in *Nature*, Bennett was able to generate 62 words per minute on a computer screen simply by attempting to speak. "This is more than three times as fast as the previous record for assisted communication using implanted BCIs and begins to approach the roughly 160-word-per-minute rate of natural conversation among English speakers," the authors wrote. "Our demonstration is a proof of concept that

decoding attempted speaking movements with a large vocabulary is possible using neural spiking activity. However, it is important to note that it does not yet constitute a complete, clinically viable system."

Proof of concept – and hope

"This is a scientific proof of concept, not an actual device people can use in everyday life," said **FRANK WILLETT, PhD**, lead author of the study said in the Stanford news article. "But it's a big advance

toward restoring rapid communication to people with paralysis who can't speak."

But for Bennett, the results of the study offer hope. "Imagine," she wrote, "how different conducting everyday activities like shopping, attending appointments, ordering food, going into a bank, talking on a phone, expressing love or appreciation – even arguing – will be when non-verbal people can communicate their thoughts in real time."

Usage, funding

The device described in the study is licensed for investigative use only and is not commercially available. The study was funded by the National Institutes of Health (grants U01-DC017844 and U01-DC019430), the U.S. Department of Veterans Affairs, Stanford Wu Tsai Neurosciences Institute, HHMI, the Simons Foundation, and Larry and Pamela Garlick. ❖

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2. <https://www.nature.com/articles/s41586-023-06377-x>
3. <https://www.braingate.org>
4. <https://med.stanford.edu/news/all-news/2023/08/brain-implant-speech-a.html>

Study at RIH finds differences in microorganisms causing infection after cranial and spinal surgeries

PROVIDENCE – A new retrospective study conducted at Rhode Island Hospital has revealed significant differences in the microorganisms causing surgical site infections (SSIs) following craniectomies/craniotomies and open spinal surgery. The study, which examined surgeries performed in over 19,000 patients, aimed to shed light on the pathogens associated with infections at specific surgical sites. The study was led by **LEONARD A. MERMEL, DO, ScM**, Medical Director of the Department of Epidemiology and Infection Control, at Lifespan health system in Rhode Island.

The findings of the study, published in the *Journal of Neurosurgery*, highlight the causative pathogens at each surgical site and type of surgery at each site. The study found that *Klebsiella aerogenes*, *Serratia marcescens*, and *Enterobacter cloacae* were significantly more likely to be associated with craniotomy/craniectomy SSIs compared to spine surgeries while *Pseudomonas aeruginosa* and *Escherichia coli*, were significantly more often associated with lumbosacral SSIs compared to craniotomy/craniectomy SSIs or cervicothoracic SSIs. The authors believe that the microorganisms causing infections in the lumbosacral spine

likely emanate from patient's gastrointestinal and genitourinary tract; however, some of the microorganisms causing infections after craniotomy/craniectomy such as *Serratia marcescens* and *Enterobacter cloacae*, may have environmental sources.

The implications of these findings are significant for SSI prevention. The study suggests considering intraoperative preparation of cranial, cervical, and upper thoracic surgical sites with benzoyl peroxide, in addition to other cutaneous antiseptic agents. Managing fecal or urinary incontinence should also be prioritized to minimize soilage in the early postoperative period. Furthermore, broader gram-negative coverage should be considered for antibiotic prophylaxis in lumbar/lumbosacral fusion surgeries. Attention should be paid to craniotomy/craniectomy sites in the early postoperative period to prevent contamination from the surrounding environment. Lastly, the study recommends routine preoperative screening for MRSA and MSSA, with appropriate decolonization measures for colonized patients or those with a history of infection.

Further research is needed to validate these results and explore additional preventive measures. ❖

Senators Reed and Whitehouse tour the Brown University Labor and Delivery Center and Women's Health Research Institute at Women & Infants Hospital

PROVIDENCE – On Tuesday, August 15, 2023, U.S. Senators **JACK REED** and **SHELDON WHITEHOUSE** joined Care New England and hospital leadership to tour the construction site of the new Brown University Labor and Delivery Center and the Women's Health Research Institute at Women & Infants Hospital, a project which is currently underway and expected to be completed in December 2024. The senators assisted in securing \$803,000 in federal funding for the completion of this project.

Dimeo Construction Company ceremonially broke ground on May 10, 2023.

The project will comprise a three-story addition including twenty (20) labor and delivery rooms, nurses' stations, a staff lounge, a locker room, and management offices. Plans for the new Brown University Labor & Delivery Center also include larger rooms to accommodate a greater variety of birthing practices. Ultimately, the new unit will help meet Women & Infants Hospital's goal of eliminating disparities in care and elevating every mother's birthing experience. And, the Women's Health Research Institute will tackle important projects including much-needed health equity research.

"I am thankful that our state's elected leaders understand and are invested in this project, which will impact Rhode Island families for generations to come. It's my distinct pleasure to take members of our congressional delegation on a tour of the mock-up labor and delivery center, to show how it will enhance patient experience and answer any questions they may have," said **SHANNON SULLIVAN**, president and COO, of Women & Infants Hospital.

"Woman & Infants and its outstanding team of doctors, researchers, and health professionals help to care for so many Rhode Island families during some of the most significant days of their lives. I was proud to team up with Senator Whitehouse to secure \$803,000 in federal funding to help make this new Labor and Delivery Center a reality," said U.S. Senator Jack Reed, a senior member of the Senate Appropriations Committee. "I look forward to watching the progress of this project as Brown University and Women & Infants team up to ensure Rhode Islanders have the state-of-the-art resources



Shannon Sullivan, president and COO, of Women & Infants Hospital, toured the construction site of the new facility with Rhode Island Senators Reed and Whitehouse. [CARE NEW ENGLAND]

needed to improve health care for mothers in our state."

"Women & Infants Hospital provides high-quality care for moms and newborns across Rhode Island," said Senator Whitehouse. "These new state-of-the-art facilities, funded in part by the federal earmark we secured, will help strengthen maternal care and give babies the healthiest possible start."

The Campaign to Deliver Our Future, the philanthropic effort raising critical funds, is proudly led by a very invested, all-woman steering committee. To date, the campaign has raised \$25.4 million of the estimated \$40 million necessary to complete the project. To try to meet the financial obligations of the new building, Women & Infants seeks not only to continue raising capital for this project but to include the entire community in its effort.

Among its notable distinctions, Women & Infants Hospital has been recognized as a Baby-Friendly USA hospital. *US News and World Report* ranked Women & Infants Hospital's Department of Obstetrics and Gynecology the 12th best in the nation. ❖

S. Chris Tian, MD, introduces innovative procedure to relieve chronic vertebrogenic low back pain

EAST PROVIDENCE – University Orthopedics announced on Aug. 23rd that **DR. S. CHRIS TIAN**, an expert in interventional pain management, recently became the first in Rhode Island to offer an innovative treatment for patients seeking relief from a distinct type of chronic low back pain (CLBP) known as vertebrogenic pain.

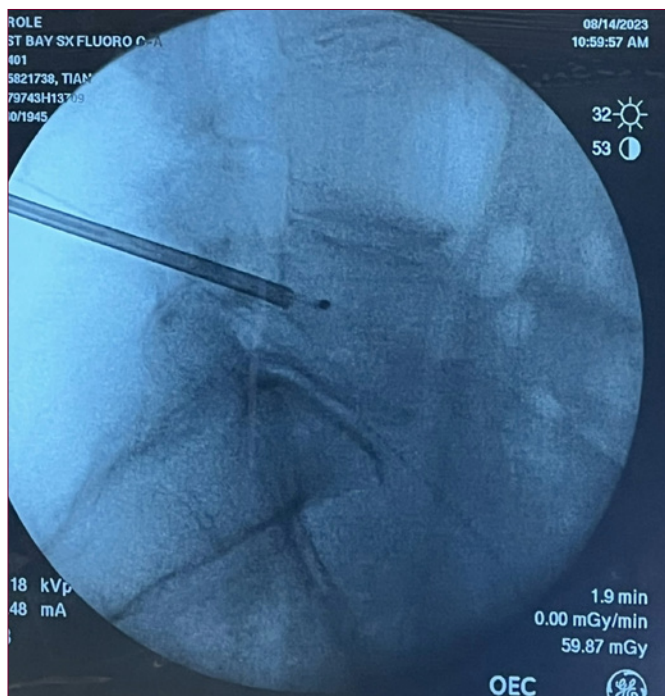
Dr. Tian successfully performed two Intracept® Procedures at University Orthopedics' East Bay Surgery Center in East Providence. The minimally invasive, outpatient procedure takes about an hour and is implant-free, so it preserves the overall structure of the spine. It works by targeting the basivertebral nerve (BVN) in the spine with radiofrequency energy. During the procedure, Dr. Tian used a probe to heat the BVN, rendering it unable to transmit pain signals to the brain.

The Intracept Procedure is supported by multiple clinical studies, including two Level I randomized controlled trials and five-year data on patient outcomes. Key findings include:

- Long-term improvements in pain and function, sustained more than 5 years¹
- Sustained decrease in patients using opioids and injections long-term¹
- Nearly 80% of patients indicated they would have the procedure again for the same condition¹
- Less than 0.3% rate of serious Intracept Procedure-related complications reported.²



Dr. Tian successfully performed two Intracept® Procedures at University Orthopedics' East Bay Surgery Center in East Providence. [UNIVERSITY ORTHOPEDICS, COURTESY OF PRACTICE MARKETING & COMMUNICATIONS]



“With the Intracept Procedure, we are embarking on a paradigm shift in the treatment and diagnosis of vertebrogenic pain,” Dr. Tian said. “Not only is the procedure proven to be safe and durable but it also provides patients with the opportunity to get back to living without the burden of chronic low back pain.”

The indicated patient for the Intracept Procedure has chronic low back pain of at least six months duration, has not responded to at least six months of conservative care, and presents with degenerative vertebral endplate changes consistent with Type 1 or Type 2 Modic changes at L3 through S1 on an MRI. ❖

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2. Relevant data on file as of January 2023.

Robotic Bronchoscopy System now in use at Kent

WARWICK – In April 2023, Kent Hospital acquired the Ion Endoluminal Robotic Bronchoscopy System, a cutting-edge, robotic-assisted platform that offers physicians unprecedented stability and precision to access small lung nodules deep in the lungs. “This technology dramatically enhances our ability to both diagnose and treat early-stage lung cancers,” said **DR. MATTHEW POMMERENING**, a thoracic surgeon at Brigham and Women’s Hospital and Care New England who is leading the program at Kent Hospital. He added, “with the Ion robotic bronchoscope, we can not only diagnose early-stage lung cancers with increased accuracy and precision, but we can also inject a dye to help us find the tumor during surgery. This allows us to remove less lung tissue and complete both diagnosis and surgical resection all in one single procedure.”

Ion is made by Intuitive, the company that makes the da Vinci robotic surgical system, which is also being used to perform minimally invasive robotic lung resections at Kent. ❖



Since launching the program in April, over 50 robotic lung biopsies have been performed at Kent Hospital. [CNE]

14th Annual Swim Across America – RI Open Water Swim raising funds to support cancer research at W&I

PROVIDENCE – On Saturday, September 9, 2023, Swim Across America – Rhode Island Open Water Swim (SAA-RI) will hold its 14th annual charity swim at scenic Roger Wheeler State Beach, located at 100 Sand Hill Cove in Narragansett. Funds raised through this event will directly support crucial and often life-saving cancer research at Women & Infants Hospital. Established in 2010, SAA-RI has raised over \$2 million to date, to fund cancer research at Women & Infants Hospital.

Each year, the Rhode Island charity swim attracts over 600 swimmers and volunteers who enthusiastically show up to support this worthy cause, including notable Olympian and Rhode Island native **ELIZABETH BEISEL**.

“I encourage Rhode Islanders from across our great state to help us make a splash this year! This event is a fun time for the whole family while giving everyone the opportunity to simultaneously support crucial cutting-edge gynecological and breast cancer research that may ultimately save lives. Every year, millions of Americans are beating cancer through advancements in treatments, which funded research helps make possible. I hope you’ll all join us on Saturday, September 9th, at one of Rhode Island’s most picturesque beaches for this truly meaningful charity swim,” said **SHANNON SULLIVAN**, president, and COO of Women & Infants Hospital.

This year’s open water swim will include three swim options and one virtual option: a 1-mile, 0.5-mile, or 0.25-mile open water swim, or SAA My Way (virtual).

While hundreds of local swimmers, and water and land volunteers join in the swim, the Rhode Island event is known for having more college swim teams participate than any other swim in the country.

To learn more about Swim Across America or to register to swim, volunteer or donate, please visit swimacrossamerica.org/rhodeisland. ❖



W&I, Israeli tech form to collaborate on optimizing AI for fertility patients



PROVIDENCE – The Rhode Island Israel Collaborative (RIIC), a non-profit organization promoting collaboration between Israeli and Rhode Island businesses, academics, and science projects, recently announced Women & Infants Hospital will collaborate with the Israeli technology firm FertilAI to enhance clinical outcomes for fertility patients and optimize operations efficiency.

Under this research agreement, FertilAI will leverage Women & Infants Hospital's data retrospectively to validate the accuracy of its artificial intelligence algorithms. These algorithms were specifically developed to improve clinical outcomes and operations efficiency for fertility patients. By analyzing Women & Infants Hospital's data,

the algorithms can be trained and validated on diverse patient populations, ensuring their effectiveness and applicability in various clinical settings.

MAY-TAL SAUERBRUN-CUTLER, MD, Division of Reproductive Endocrinology and Infertility at Women & Infants Hospital, Assistant Professor of Obstetrics and Gynecology, Alpert Medical School of Brown University, and **ROHI HOURVITZ, MBA**, CEO and Co-Founder FertilAI, signed the research agreement.

For more information: <https://www.theriic.org>; <https://fertilai.com>. ❖



Sturdy Health, Tufts Medicine enter into a new clinical partnership; initially to focus on cardiovascular services

ATTLEBORO, MA – Sturdy Health and Tufts Medicine have entered into a new clinical partnership to expand access to comprehensive specialty care with an initial focus on cardiovascular services.

Together, Sturdy Health and Tufts Medicine will jointly recruit top-talent cardiologists to Sturdy Health. These physicians and surgeons will have reciprocal hospital privileges at Tufts Medical Center.

Tufts Medical Center is home to the largest advanced heart failure program in New England. The Hypertrophic Cardiomyopathy Association (HCMA) named Tufts Medical Center one of only four Centers of Excellence in the treatment of this condition. Since 2000, Tufts Medical Center has performed more adult heart transplants than any other hospital in New England.

"This clinical partnership further expands our ability to provide the highest quality care in the communities we serve as an independent, locally owned and operated non-profit health system," said **AIMEE BREWER**, president and chief executive officer at Sturdy Health. "Not only will Sturdy Health patients have the advantage of broader service offerings locally, they will also benefit from a seamless experience for their tertiary care needs."

"As an integrated health system, Tufts Medicine works closely with hospital partners like Sturdy Health to ensure advanced care is offered in the most convenient location for patients," said **MICHAEL TARNOFF, MD**, chief executive officer of Tufts Medical Center. "We look forward to providing a streamlined pathway to well-coordinated, complex care services to Sturdy Health and their patients."

Sturdy Health will continue its longstanding clinical partnership with Boston Medical Center and Shields Health, as well as its radiation oncology joint venture with Mass General Brigham and McLean Hospital for behavioral health services. ❖

[BROWN UNIVERSITY, FERTIL AI]

CDC launches effort to strengthen survival, recovery rates for sepsis patients

WASHINGTON, DC – The Centers for Disease Control and Prevention (CDC) is launching the Hospital Sepsis Program Core Elements to support all U.S. hospitals in ensuring effective teams and resources are in place to be able to quickly identify sepsis and save more lives. This new, critical resource is intended to help hospitals implement, monitor, and optimize sepsis programs and improve survival rates. CDC's latest survey of 5,221 hospitals found 73% report having sepsis teams, but only half (55%) report that team leaders are provided with dedicated time to manage sepsis programs.

"Sepsis is taking too many lives. One in three people who dies in a hospital has sepsis during that hospitalization. Rapid diagnosis and immediate appropriate treatment, including antibiotics, are essential to saving lives, yet the challenges of awareness about and recognition of sepsis are enormous. That's why CDC is calling on all U.S. hospitals to have a sepsis program and raise the bar on sepsis care by incorporating these seven core elements," said CDC Director **MANDY COHEN, MD, MPH**. "Seven elements provide an organizational framework and key concepts that guide hospitals as they work to improve early recognition and treatment to save lives."

The Sepsis Core Elements are intended to be a "manager's guide" to organizing staff and identify the resources that will help bring sepsis rates down and survival rates up. Sepsis care is complex. The Sepsis Core Elements approach is an important step to help hospitals structure their sepsis programs to coordinate multiple departments and disciplines and effectively manage the multifaceted care needed. Based on CDC's 2022 National

NEW CDC DATA

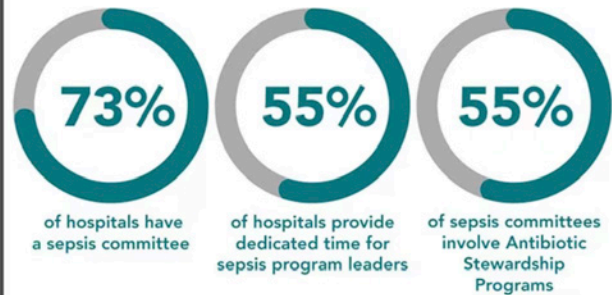
In a typical year, 1 in 3 people who dies in a hospital had sepsis during that hospitalization.

But half of U.S. hospitals provide dedicated time for sepsis program leaders.*

*2022 survey of 5,000+ hospitals



U.S. HOSPITAL SEPSIS PROGRAM DATA, 2022



Find resources on how to optimize sepsis programs:
<https://bit.ly/SepsisCoreElements>

Healthcare Safety Network Annual Survey of hospitals, only half (55%) report that they integrate Antibiotic Stewardship Programs, for example, to monitor and review antibiotic and antifungal use in sepsis care. This presents an opportunity to improve a vital component of a patient's successful recovery from sepsis.

Modeled after CDC's Core Elements of Antibiotic Stewardship, which has proven to be an impactful resource to protect patients from the harms caused by unnecessary antibiotic use and to combat antimicrobial resistance, the Sepsis Core Elements were created with the expectation that all hospitals, regardless of size and location, would benefit from this resource and incorporate the following elements into the foundation of a strong sepsis program:

- 1. Leadership Commitment:** Dedicating the necessary human, financial, and information technology resources.
- 2. Accountability:** Appointing a leader responsible for program outcomes and setting concrete program goals.
- 3. Multi-professional expertise:** Engaging key partners throughout the organization.

4. Action: Implementing structures and processes to improve the identification of, management of, and recovery from sepsis.

5. Tracking: Measuring sepsis epidemiology, outcomes, progress toward program goals, and the impact of sepsis initiatives.

6. Reporting: Providing usable information on sepsis treatment and outcomes to relevant partners.

7. Education: Providing sepsis education to healthcare professionals during onboarding and annually.

"CDC's Hospital Sepsis Program Core Elements are a guide for structuring sepsis programs that put your healthcare providers in the best position to rapidly identify and provide effective care for all types of patients with sepsis," says **RAYMUND DANTES, MD, MPH**, CDC medical advisor. "The seven elements complement clinical guidelines by describing the leadership, expertise, tracking, education, and other elements that can be implemented in a wide variety of hospitals to improve the quality of sepsis care." ❖