South Sudan is the world’s youngest nation. The landlocked country in East-Central Africa was forged in the shadow of a 14-year bloody civil war, gaining its independence in 2011 only to erupt into a political power struggle and new civil war in 2013. These wars crippled the fledgling nation, increasing poverty levels and stalling the development of infrastructure in most areas, from agriculture to transportation to medical care. Amid this chaos, many relief groups and dedicated individuals have helped refugees, including Bruce Parmelee of Binghamton, New York.

“In 2014, I deployed to assist in an aid mission stationed in Abyei, South Sudan, very close to the Sudanese border,” says Parmelee. “My role was to assist in the immediate needs of repatriating refugees – folks who had nothing but a bundle on their back, no home and were sleeping on the ground. As part of our efforts we distributed shelter kits, designed and sourced locally, and instructed people in how to assemble them.”

Parmelee, who was 65 years old at the time, was used to working in intense environments. For years, he assisted in humanitarian efforts across a host of war-torn areas throughout the Middle East and Africa. But this mission was different. He noticed he was losing his stamina quickly, becoming increasingly ill with each passing day.

“Almost overnight, my energy disappeared,” he says. “I was unable to keep pace with the daily rigors which had never impacted me on this level. Finally, I realized something was medically wrong.”

After seeking medical care, Parmelee was advised to leave the country immediately. After returning home he was admitted to his local hospital’s emergency room. Three days later he was diagnosed with liver cancer. His sister encouraged him to seek treatment at the MGH, and he began the process (Continued on page 4)
**Research Roundup**

**Halting cannabis use improves brain functions important for learning in adolescents and young adults**

The forgetful “stoner” student may seem like a tired cliche from teen movies, but it turns out there is scientific evidence that regular cannabis use can have a negative impact on learning and memory in adolescents and young adults.

A recent MGH research study found that regular cannabis users who stopped for a month showed measurable improvements in learning and memory tests when compared to a similar group who continued using cannabis during the testing period.

Study participants were 88 individuals aged 16-25 who reported using cannabis every week. Both groups – those who continued to use cannabis and those who agreed to stop – completed regular tests in thinking and memory during the study period and provided urine samples to confirm they were following the study protocols.

Researchers found that only those who stopped using cannabis had improved test results during the study, with the most significant improvements coming in the first week. The study was led by Randi Schuster, PhD, director of Neuropsychology at the MGH Center for Addiction Medicine.

“Our findings provide two pieces of convincing evidence,” says Shuster. “The first is that adolescents learn better when they are not using cannabis. The second – which is the good news part of the story – is that at least some of the deficits associated with cannabis use are not permanent and actually improve pretty quickly after cannabis use stops.”

**Could altering regulation of the brain’s immune cells improve treatment of neurodegenerative disease?**

An MGH research team led by Susan Hickman, PhD, and Joseph El Khoury, MD – both of the Rheumatology, Allergy and Immunology Division – proposes that targeting molecules that regulate the activity of microglia – immune cells within the brain – may help treat important neurodegenerative disorders.

Microglia have three roles: as sentinels, monitoring the brain for unusual changes; as nurturers, promoting the well-being of healthy neurons by clearing out dying cells and debris; and as warriors, defending the brain against infections and toxins by launching an inflammatory attack. In healthy brains, checkpoint molecules keep microglia from attacking healthy cells. But neurodegenerative diseases such as Alzheimer’s disease, Parkinson’s disease and amyotrophic lateral sclerosis all feature excessive neuroinflammation.

The MGH team detailed specific ways that disrupted regulation of microglial function allows initially protective “sentinels” to become out-of-control “warriors” that induce persistent, damaging inflammation. They also identified three potential checkpoint molecules, activation of which may return microglia to their neuroprotective state. More research is needed to understand the genetic patterns that underlie microglia behavior and how these patterns change due to aging and disease.

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**Carrying on the legacy of Latino service**

**IN 2005,** Ernesto González, MD, MGH dermatologist, received the inaugural award recognizing his outstanding service to the Latino community and beyond. Since then, the award has been renamed in his honor, and 19 more MGHers have joined González in recognition of their service. On Oct. 16, the newest honorees were celebrated at the Paul S. Russell, MD Museum of Medical History and Innovation.

Nicte Mejia, MD, MPH, FAAPN, a physician in the Department of Neurology, and Daniel Urizar, of Environmental Services, both received this year’s Ernesto González Award for Outstanding Contributions to the Latino Community – a highlight of Latino Heritage Month sponsored by the MGH Committee for Latino Initiatives and MGH Human Resources.

“I cherish as a Latina how we embrace our families and give back to our communities,” said Mejia. She grew up in Guatemala City and towns across Mexico and the U.S and became the first physician in her family. “It is truly an honor to receive a distinction that bears the name of Dr. González, and the big and small acts of kindness that he showers the world with every day.”

Urizar mentors and coaches families as part of the Be Fit for Latinos program at the MGH.

This program introduces Latino youth to music, dance and other activities. “What a difference we make when we decide to help our community,” he said.

“Bringing families together is my passion, that is what I do.”

The list of all Ernesto González Award recipients is hung year-round on the Employee Recognition Wall outside the General Store.

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**Meme excellence**

**AFTER MORE than 100 submissions and almost 600 votes cast, winners have been chosen in the first Apollo Flu Shot Meme Contest. The top two memes were close contenders in the final days of voting, so both internet aficionados were honored for their entries. Jennifer Startek, director of Education in the Infectious Disease Unit, submitted the fan favorite “Most Incredible Man” meme. Paul Endres, clinical research coordinator in Nephrology, earned second place with “The Sound of Music” meme. Endres and Startek received gift cards to any MGH Nutrition and Food Services location and certificates for “Meme Excellence.”**
Love that dirty water

PACKING THEIR SOX: From department to department, coast to coast, and sea to sea, MGHers celebrated the Boston Red Sox World Series win. Above, staff gathered outside the Bulfinch Building to show their spirit on parade day. Peter Asnis, MD, the Red Sox head orthopaedic physician, and Larry Ronan, MD, Red Sox medical director – both of MGH Sports Medicine – celebrate on the field after the final game of the series. Below, from left, Amanda Tetreault, PT; Lindsey Martin, NP; Kristen Wilson, RN; and Kim Waugh, RN, cheer on their home team from the deck of the USNS Comfort during a humanitarian mission off the coast of Venezuela. Rabbi Ben Lanckton, of the MGH Spiritual Care Department, wears his baseball-themed yarmulke in support of the Sox.

A call for quiet:
MGH performs low in ‘Quiet at Night’ patient satisfaction

REST AND SLEEP are essential to patients’ physical and emotional health – especially during times of recovery and healing. Loud conversations, unpleasant sights, sounds and smells, harsh lighting and noises from equipment, alarms and doors can interrupt sleep and the healing process.

The patient experience survey asks patients, “During your hospital stay, how often was the area around your room quiet at night?”

Here is how the MGH performed:

- In 2017, 52.6 percent of patients indicated “always” having a quiet at night experience.
- In 2018 (year-to-date), 52.7 percent indicated “always” having a quiet at night experience, putting the MGH in the 19th percentile nationally.

By the end of the 2018 calendar year, the MGH needs to meet a minimum target of 53.6 percent of patients reporting that the area around their room was “always” quiet at night.

“We are calling on our MGH family to be our champions for quieter environments,” says Debbie Burke, RN, DNP, MBA, NEA-BC, senior vice president for Patient Care and chief nurse. “There are many things that we can do to promote a relaxing environment and restful sleep for our patients. We ask that you always be mindful of the volume of your voice and consider the location of your conversations. Small changes in individual behavior can make a big difference because we know that resting promotes healing.”

Racism in our MGH Community:
Conversation Series Part 2

ENGAGING OUR EMPLOYEES: A DISCUSSION ON RACISM
NOV. 27, 5 – 6:30 PM
O’KEEFFE AUDITORIUM (BLAKE BUILDING, FIRST FLOOR)

All are invited to attend a continuation of a conversation about race and racism in the MGH community. On Nov. 27, the results from the Workforce Diversity Culture Survey that was rolled out in 2016 to MGH staff will be discussed. Employees and hospital leadership will share their perspectives about the survey and delve more deeply into the issues through an interactive audience question-and-answer session. Last April, the MGH hosted its first discussion about The Boston Globe Spotlight Series on Race in Boston which generated a great deal of discussion across the city and within the MGH community.

To RSVP for the Nov. 27 event and to learn more about diversity efforts at the MGH, visit apollo.massgeneral.org/diversity.
of evaluation for a liver transplant while also undergoing cancer treatment.

“There is a lot of information provided to patients when we first meet people like Bruce, and it can be quite difficult to absorb it all,” says Suvranu Ganguli, MD, associate chief of MGH Interventional Radiology. “Patients hear, ‘You have liver disease. You have cancer. You need a liver transplant. You need cancer treatment. These are all your options and we need to do it fast.’ So, of course, it can be very overwhelming.”

Parmelee underwent a minimally invasive image-guided procedure known as a microwave ablation to “burn” his liver tumor. He rested a day, then drove 300 miles back to his home in New York. Parmelee visited the MGH quarterly to make sure the cancer hadn’t returned, which would preclude him from a transplant. Parmelee began the long process of waiting for a new liver.

On Nov. 29, 2015 – following two false starts – the call came while Parmelee and his wife were in church. “I never bring my phone into church, so the transplant folks tracked my daughter down, who then called my wife who had her phone with her.”

Due to the Thanksgiving holiday, traffic was backed up on the Mass Pike for 28 miles into Boston. “But,” says Parmelee, “I made it.”

With 15 minutes to spare, Parmelee says when Heidi Yeh, MD, MGH transplant surgeon, came in to his room, he held his breath. “She smiled and said, ‘this liver is beautiful.’”

Five days after his transplant, Parmelee was discharged, but he stay in the Boston area for the next three weeks for regular monitoring. He returned home on Dec. 26, 2015 and was back at the gym the following day.

Last January, Parmelee – now 70 years old – was catching up with a friend who said he wanted to go to Nepal to go trekking in the Himalayas. “Let’s do it,” Parmelee said. They bought the tickets that evening.

Less than three years after beating cancer and receiving a new liver, Parmelee left for Nepal in April with his friend and three other trekkers. The group made it to Annapurna Base Camp I at 13,500 feet and back down in nine days. “The five of us had an age range of 68 to 71, so this was definitely a bit beyond the typical troupe who commits to scaling any part of the Himalayas,” Parmelee says.

Parmelee remains positive about his transplant experience and the future. “I am really grateful for the care I received at MGH. I’m always impressed at how dynamic the encounter is. My entire team truly cares – while also making me feel welcome and championing my continued growth beyond the transplant.

“If I can impart one piece of advice, it would be to prepare for all scenarios, good and bad, and to remain as optimistic as possible. In all things – aiding humanitarian crises, my trip to Annapurna Base Camp in the Himalayas or preparing for the transplant – there simply isn’t time to second guess or worry. Just put your head down and prepare for the journey ahead as much as you can.”

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Supporting those who have served

HOME BASE – a Red Sox Foundation and MGH program – hosted its sixth annual Mission: Gratitude Sept. 27, raising more than $1 million in support of programs for veterans and their families affected by the invisible wounds of war. The event took place in the Charlestown Navy Yard for the second consecutive year, with Congressional Medal of Honor recipient Master Chief Special Warfare Operator Edward C. Byers Jr. providing a keynote address advocating for proper mental health care for those who have served. The annual Major General Joseph Warren, MD, Award also was presented to Ken Fisher, chairman & chief executive officer of Fisher House, which provides lodging for veterans and families who come to Boston from across the country.

Pictured above, from left, are Jack Connors Jr., founding partner and former CEO of Hill Holliday; Peter L. Slavin, MD, MGH president; Fisher; retired Brig. Gen. Jack Hammond, Home Base executive director; and Michael Allard, Home Base CEO.

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(Continued from page 1)