Study finds rapid CPR improves neurological outcome

By Erica Rheinschild

The decision to begin CPR or wait for paramedics to arrive could mean the difference between a favorable neurological recovery or a coma, brain death or even death for a drowning victim in cardiac arrest, according to a new study led by Joshua Tobin, MD, associate professor of clinical anesthesiology at the Keck School of Medicine of USC, published in the June 2017 issue of Resuscitation.

“We found that when bystanders begin CPR before emergency personnel arrive, the person has a higher chance of leaving the hospital and leading a life reasonably close to the one they had before the drowning,” Tobin explained. The World Health Organization lists drowning as the third-leading cause of accidental injury death worldwide, and drowning claims the lives of about 10 people every day in the United States, according to the Centers for Disease Control and Prevention. Tobin, who is a member of the American Red Cross Scientific Advisory Council, collaborated with other members to identify more than 900 children and adults who had experienced cardiac arrest after drowning and then determine what factors influenced positive and negative outcomes for these patients.

“When we talk about cardiac arrest, there’s no doubt that we want people to survive. But surviving and being in a persistent vegetative state would not be considered a success by most people. That’s why we chose to stratify the results by favorable or unfavorable neurological outcome,” Tobin said.

A favorable outcome was defined as good cerebral performance or moderate cerebral disability at hospital discharge, and an unfavorable neurological outcome was defined as coma or vegetative state, brain death or death.

The results showed that drowning victims in cardiac arrest were three times more likely to have a favorable outcome if bystanders had begun CPR before emergency personnel arrived.
In Memoriam: David Goldstein, 71

D avid Aaron Goldstein, a long-time advocate of clinical medicine at the Keck School of Medicine of USC, died at his home on May 2 at the age of 71. A practicing internist for more than four decades, Goldstein served on the Keck School of Medicine Clinical Practice Committee of the USC Care Medical Group for more than 25 years. During his 26-year tenure as chief, Goldstein oversaw the division of internal medicine’s expansion to eventually include bring hospital medicine and palliative care services to the Keck Medical Center and teaching hospitals of the USC Care Medical Group (LAC-USC).

“He will always be remembered for his many years of dedicated service,” said Edward Cranillo, MD, MD, chair of the Department of Medicine and the Keck School of Medicine’s chief of staff. “He not only taught me how to be a better physician, but also how to be a leader, teacher, and friend. He was the most important influence on my professional career and will leave a void in our lives that cannot be filled. With support from Noreen Gutel, a grateful patient, Goldstein was a valued leader in medical education, and served as co-director of the Pacific Center for Health Policy and Ethics, as coordinator of the HEAL (Humanities, Ethics, and Clinical Law) curriculum for the Keck School and as co-chair of the Bioethics Committee of Keck Medical Center and the university’s Institutional Review Board.

“Dr. Goldstein will always be remembered as a dedicated physician and friend,” said Mark Karp, MD, assistant professor of clinical medicine and chief of the division of gynecologic, gynecologic and general internal medicine. “He was also considered an expert in medical education, having served the Keck School as a director of graduate education and the chair of the Department of Medicine, which he held from 1987 to 1993, and associated dean for research. With support from Noreen Gutel, a grateful patient, Goldstein was a valued leader in medical education, and served as co-director of the Pacific Center for Health Policy and Ethics, as coordinator of the HEAL (Humanities, Ethics, and Clinical Law) curriculum for the Keck School and as co-chair of the Bioethics Committee of Keck Medical Center and the university’s Institutional Review Board.

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Keck School celebrates legacy as newest class of 50 Year Fellows are inducted

By Melanie Manuatz

A medical student inside a lab, surrounded by equipment.

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David Agus awarded 2017 Ellis Island Medal of Honor

By Autumn Boomer Phillips

On May 14, David Agus, MD, professor of medicine at the Keck School of Medicine of USC, founding director of the Lawrence J. Ellison Institute for Transformative Medicine of USC and director of the USC Center for Applied Molecular Medicine, joined 98 other outstanding luminaries to receive the 2017 Ellis Island Medal of Honor from the National Ethnic Coalition of Organizations (NECO). The Ellis Island Medal of Honor commends a select group of individuals whose achievements and exceptional service to the nation embody the American spirit in their patriotism, tolerance, brotherhood and diversity, and is among the nation’s most celebrated awards. Agus’ lifetime of devoted work and his passion for bringing health and wellness to all Americans were among the reasons NECO chose to honor him this year.

Almost 700 people attended the event on Ellis Island, which included speeches from astronaut Buzz Aldrin and journalist Fareed Zakaria, as well as NECO Chairman Naser Kazeminy and Master of Ceremonies journalist Marvin Scott, who each stressed the importance of unity and how immigration is an integral part of the American Dream. A black-tie gala immediately followed the award ceremony in the historic original registry room in the Great Hall, a symbolic and literal gateway for 12 million immigrants to the United States.

“It was a privilege to stand among so many visionaries to receive the Ellis Island Medal of Honor,” Agus said. “Like NECO, I believe that bringing diverse people together will create a stronger, more powerful whole. It is essential that we find a way to come together, both as researchers and as a nation, to find solutions to the health challenges that face us today.”

USC is home to several Ellis Island Medal of Honor recipients, celebrated for their dedicated service and achievements. Past USC honorees include USC President C. L. Max Nikias, PhD, and Thomas Lee, MD, associate professor of clinical ophthalmology at the Keck School of Medicine, who received the Ellis Island Medal of Honor in 2016 and 2012, respectively.

Lieberman receives $2.2 million NIH grant to fund research

By Erica Rheinschild

Joy R. Liebermann, MD, chair and professor of orthopaedic surgery at the Keck School of Medicine of USC has received a five-year, $2.2 million grant from the National Institutes of Health’s National Institute of Arthritis and Musculoskeletal and Skin Diseases to research gene therapy to enhance repair of extensive bone injuries. Examples of these types of injuries include fractures with extensive bone loss, non-healing fractures, failed spinal fusion and revision total joint replacement failure.

Lieberman will genetically manipulate human bone marrow cells to overexpress bone morphogenetic protein (BMP), which is a protein that spurs progenitor cells to produce bone.

“There are a number of bone injuries that are very difficult to repair and lack satisfactory solutions,” Lieberman says. “My goal with this grant is to determine whether genetically modifying human bone marrow cells to overproduce BMP will help heal large bone defects in an animal model and, ultimately, provide a better alternative for repairs in humans.”

Lieberman’s study will determine the efficacy and safety of the gene therapy as well as establish a cellular dose of the genetically manipulated cells that can be scaled up for potential use in humans.

An abstract of the grant, 2R01AR057076-06A1, is available on the NIH RePORTER website (https://projectreporter.nih.gov). One hundred percent of the project’s funding — $2,284,028 — will be federally funded.

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