

Report on Research Compliance Volume 17, Number 1. January 01, 2020 Sandbags, Sleepless Nights: OLAW Webinar Explores Strategies for Managing Disasters

By Theresa Defino

Nine years ago in October, Superstorm Sandy swept through New York City, bringing with it a 14-foot storm surge of the East River, swamping portions of New York University (NYU) Langone Medical Center, displacing patients, staff, investigators—and research animals.

According to the 2017 report, "Strengthening the Disaster Resilience of the Academic Biomedical Research Community: Protecting the Nation's Investment," by the National Academies of Science, Engineering and Medicine, [1] NYU Langone had to relocate approximately 90 researchers and 13,000 rodent cages "long term," when two vivaria were flooded. Thousands of mice drowned.

The kinetic energy of the storm was nearly three times that of Hurricane Katrina, "equivalent to about five Hiroshima bombs," recalled Jennifer Pullium, senior director in the NYU School of Medicine Division of Comparative Medicine, while discussing "disaster response and recovery" as part of a recent webinar sponsored by the NIH Office of Laboratory Animal Welfare. [2] "The building where we sustained the losses was designed to withstand a storm surge 20% greater than the largest surge in recorded history in New York City. We had minutes to evacuate the staff in the vivarium."

But some 600 mice were saved, Pullium said, describing how workers cleaning up a foot of diesel fuel 10 days after the storm had come through discovered some mice in upper rows of the building were alive. She called the rescue "one bright spark in all of this."

"These rooms had ventilated caging bolted to the walls, allowing the racks to be taller, but requiring a ladder to reach the upper rows," Pullium said. "This means that the researchers never used them. Prior to the storm, we moved the lower cages to these upper rows, but we were still shocked given everything that happened—including no ventilation for 10 days—that anything could still be alive."

Assembled were "care staff, vet techs, a veterinarian" and institutional animal care and use committee staff "positioned in the ceiling above. We were fortunate to have this interstitial space. The hazmat guys volunteered to stay overtime to help us and be in the rooms. The only way for our guys to get access to the animals was to cut a hole in the ceiling of each room, pass a basket down to the guys below, and have them load up three cages at a time and pass them back up to be triaged," Pullium added. "Then the cages were passed to care techs who ran the equivalent of eight city blocks to get them to secure housing space. This went on through the night until they had rescued 600 cages of healthy mice—about 10% of the total population. Obviously, these animals had been through a lot and weren't going to be good experimental candidates, but they were used to rederive valuable and unique genetically modified strains that many [principal investigators] thought were gone forever."

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