

Balancing Inequities in Health Care

Health disparities research shows radical differences in medical conditions and care for some patient groups. Chicago faculty members seek ways to even out those inequalities.

by *Suzanne Wilder* _____ **22**

The New Bio Home

The Ricketts Regional Biocontainment Laboratory will bring high-tech—and high-security—facilities to researchers at Argonne.

by *Megan Seery* _____ **30**

A ‘Dream Job’ for an Evolutionary Biology Student

Nathan Smith studies dinosaurs, digs for fossils and travels the world—all part of his work at the Field Museum and as a PhD candidate at the University of Chicago.

by *Katie Scarlett Brandt* _____ **34**

departments

Midway News

Catch up on the latest research and news in medicine and biology at Chicago, plus the latest books by faculty and alumni.

_____ **2**

Medicine off the Midway

Charis Eng couldn't decide between medicine or chemistry, clinical work or research. Ultimately, she brought them all together.

by *Katie Scarlett Brandt* _____ **36**

Class Update

_____ **40**

Perspective

Dean of the Biological Sciences James L. Madara and Dean of Medical Education Holly J. Humphrey share their thoughts on the value of staying small at Pritzker.

_____ **46**



Under wraps

As two men removed a glass case from around the patient, a petite 30-year-old female who was headed to a CT scan, an observer leaned forward with a question: “Does she have a mummy smell?”

This is no ordinary patient. She is Meresamun, an Egyptian mummy embalmed nearly 3,000 years ago and now housed at the University of Chicago’s Oriental Institute.

The observer, OI research associate Emily Teeter, PhD, helped coordinate the scan with Michael Vannier, MD, professor of radiology at the University of Chicago Medical Center. The goals: To create a three-dimensional reconstruction of Meresamun’s face, analyze her pubic bones to determine whether she had children, and examine evidence on her nutrition, dentition, age and injuries.

The information garnered from the images will enhance a new exhibit featuring Meresamun and her life as a temple singer. Her profession, like her name, is printed in hieroglyphs on her intricately painted coffin.

Meresamun was scanned here more than 15 years ago, but since then technology has drastically improved. In the first scan, researchers learned she had fractured her left jaw and left arm during her life. They also estimated her age but could not pinpoint a cause of death. The first set of scans took hours; the most recent finished in minutes.

For the scans, Meresamun remained sealed in her coffin and wrapped in an additional box for transit across campus. The medical equipment, typically used for living patients, became “an anthropological tool,” Vannier said.

On a sunny July morning, a U-Haul van arrived at the entrance of the Mitchell ER. A team of conservators and medical staff moved a wooden crate, marked in hieroglyphs with the word “fragile,” to radiology. Meresamun came out of the crate for the 64-slice CT scan, where technologists captured thousands of images from head to toe. Kristin Runion, one of the CT technologists helping with the scan, snapped photos with her cell phone and listened to details about the mummy. “I just got a history lesson,” she said as Meresamun slid in and out of the tunnel-like machine.

“You should come by and see her when she’s on display,” Teeter told Runion as images gradually appeared on a computer screen nearby. “You’ll be able to say, ‘I know this mummy inside and out.’”

—*Suzanne Wilder*

On these pages: Meresamun in her coffin at the University of Chicago Oriental Institute and in the CT scanner at the Medical Center, and a digital image from her scan; scan courtesy of Michael Vannier, MD.
Photos by Dan Dry

