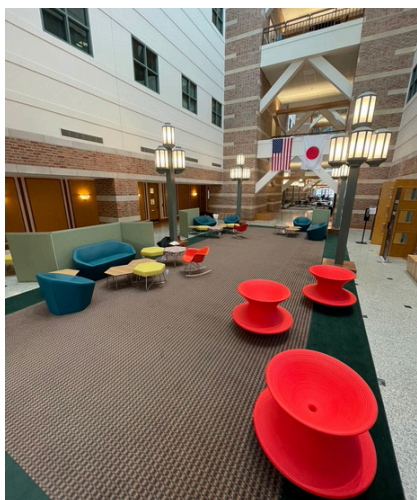


Beckman Institute

for Advanced Science and Technology

Self-guided tour - Beckman's first floor

Watch a short video



Welcome to the Beckman Institute! We hope you'll take a minute to explore our first floor, which includes several exhibits. Find more information below on the Beckman Rotunda, which features in-depth information about Arnold and Mabel Beckman, and the Illinois MRI Exhibit. This is the area centrally located off the atrium with an exit south to the rest of campus.

In the southwest corridor and outside the Beckman Auditorium, you'll also find more historical information about the founding and history of the Beckman Institute. Beckman was one of the first buildings of its kind, dedicated to cutting-edge, interdisciplinary research. The architects designed the building to bring people together. Such features included a café, central elevators (and hard-to-find staircases) and labs and offices separated by bridges across the atrium that have space for meetings and collaborations.

Arnold and Mabel Beckman Exhibit, Beckman Rotunda

Watch a short video



Arnold and Mabel Beckman's vision and generosity made the Beckman Institute one of the first interdisciplinary research facilities in the world.

In this exhibit, learn more about Arnold's early life and his careers in academia, business and philanthropy. You'll also learn more about Arnold's time in the U.S. military, during which he met Mabel Meinzer while stationed in New York. Mabel became his partner in all things.

Items to notice

- Near the south entrance, see "Fourteen Weeks in Chemistry," by Joel Dorman Steele, which sparked a young Arnold Beckman's curiosity in science and more specifically, chemistry.
- On the northeastern side of the exhibit, see the pH meter invented after a friend from Dr. Beckman's undergraduate days came to him seeking a way to evaluate when his citrus fruit was ripe for picking.
- On the eastern side of the exhibit, see a copy of Arnold's 90th birthday card, signed by five consecutive former U.S. presidents.
- On the southeastern side of the exhibit, find Beckman's oxygen analyzer. It was originally used in aircraft and submarines, then later in hospitals. Being able to monitor oxygen being given to premature babies kept them from going blind.



Illinois MRI Exhibit

Watch a short video



In the 1940s and '50s, interdisciplinary researchers at Illinois began pioneering studies on nuclear magnetic resonance. Their work allowed for Paul Lauterbur, a late Illinois faculty member, to invent magnetic resonance imaging at Stony Brook University in New York in 1971.

Lauterbur joined the Illinois faculty in the 1980s and won the Nobel Prize in Physiology or Medicine in 2003 for inventing MRI. In the late 2010s, Illinois researchers discovered Lauterbur's first two human MRI scanners in storage. They were cleaned, reassembled and are now on display in the Illinois MRI Exhibit.

The scanner on the left was the first. Manufacturers had never created an MRI scanner that big before, so they mistakenly made it too small for a person to fit inside. (See scans of paperwork related to this on the south digital sign, nearest the scanners.) The scanner on the right is the first scanner large enough to fit a human.

These MRIs have what we call low field strength, which is measured at 0.09 Tesla. Researchers currently conduct research on two 3 Tesla MRIs and a 9.4 Tesla preclinical MRI scanner in Beckman's basement. Using these scanners, researchers have found physical activity affects brain structure and can help us stay healthy and mentally fit as we age.

The University of Illinois and Carle Foundation Hospital co-own and operate a 7 Tesla MRI scanner that's located on the Carle Health main campus in Urbana. At 7 Tesla MRI, it is the highest resolution FDA-approved clinical scanner for human knees and brains. It's the only scanner of its kind in the state and is currently used for the CU Population Study, which includes many different community members and groups, including local first responders.



Items to notice

- Digital signs around the exhibit highlight the technology that powers MRI scanners, current and former Illinois researchers and interesting facts about MRI. Try taking the MRI quiz on the north sign.
- In the display, see a replica of Paul Lauterbur's Nobel Prize and other related artifacts.
- Take a selfie in front of the scanners at our selfie station. Use the #IllinoisMRI hashtag on your public social media profiles to appear in our photo feed on the north wall.