



### Where I work Nadia Rosenthal

Photographed for *Nature*  
by Tiffany Laufer.

**T**he plastic tubes winding through my workspace at the Jackson Laboratory in Bar Harbor, Maine, deliver fluids, nutrients and therapeutics to mouse hearts. The still-beating hearts, each the size of a pea, tell us much about heart disease as well as about the processes of regeneration and repair.

On this day, I was studying a mouse with a mutation that made it especially sensitive to a high-fat diet. The same mutation has been found in people, so examining that genetic glitch might help us to better understand human metabolic imbalances.

The laboratory is home to more than 11,000 strains of mice, in all shapes and sizes. Many of the mice have been genetically engineered to address specific questions, but some have been bred by mouse fanciers. The bronze mouse in the foreground – named Hunca Munca after a character in a Beatrix Potter book – is the lab mascot.

As an independent laboratory, we're very nimble. When we engineer models that we think are useful – mice that are susceptible to the SARS-CoV-2 coronavirus, say – we can

get them out there in large numbers very rapidly. In 2019, we delivered more than 3 million mice to more than 1,400 research organizations around the world. With our limited number of faculty members, outside collaboration is important.

We recently sent engineered mice to the Rocky Mountain Laboratories in Hamilton, Montana, where they were exposed to SARS-CoV-2. Some of the mice are showing COVID-19 symptoms, suggesting that they could be useful models for understanding the interplay between genetics and the progression of that disease in humans.

The pandemic has mostly spared Maine, although we had to postpone a lot of experiments. But with so many mice to take care of, the lab has never shut down completely. We're on the Maine coast, right next to a national park. If you appreciate rugged natural beauty, it's a stunning location. I'm very fortunate to be here.

**Nadia Rosenthal** is the scientific director of the Jackson Laboratory in Bar Harbor, Maine.  
**Interview by Chris Woolston.**