



Where I work Savannah Braden

Photographed for *Nature* by
Rocco Ceselin.

My job here at Apeel, a food-systems technology company in Goleta, California, is to unlock how genes and metabolites, or products of food breakdown, control the degradation of fruits such as mango and avocado. The company uses plant-based coatings to double the shelf life of produce and reduce waste from a range of crops – including apples, mangos, cucumbers and citrus fruits.

As a senior biological scientist, I monitor fruits' basic physiology at harvest, including respiration and loss of mass. My work is very seasonal. From spring to summer, I visit local farms to sample avocados. In this picture, I'm cryofreezing slices of avocado to study markers of stress. Because avocados are alive, their cells respond to changes in their environment, including cutting, so I couldn't simply store the slices in a refrigerator. The slices have to be cryopreserved so that I can examine those specific stress markers, which can be strong predictors of whether the avocado will mould, turn brown or have disorders, which are often linked to how

long produce will last post-harvest.

I've always been fascinated by how the natural world can inspire technology, and that is the focus of several laboratories at the University of California, Santa Barbara, where I finished my undergraduate degree in 2015 and my master's in 2016.

While there, I heard of Apeel, where I began working in 2016. James Rogers, Apeel's chief executive and founder, was researching how to reduce food waste and formed the company in 2012. Our goal is to make sure food gets turned into the most appropriate product that can reach a person who needs it. For example, if we can identify which avocados might ripen more rapidly, they can be targeted for guacamole.

We're at the forefront of understanding food in a different way. People want to know where it comes from and how it was grown. The goal of my job is to read the mind of avocados.

Savannah Braden is senior biological scientist at Apeel in Goleta, California. **Interview by Virginia Gewin.**