Food for thought:
Combining the right ingredients for an exciting career in science

Rachel J. Dutton, Ph.D.
Bauer Fellow, FAS Center for Systems Biology
Harvard University

After receiving her Ph.D. in Microbiology from Harvard Medical School, Rachel Dutton was awarded a Bauer fellowship at Harvard University to start an independent research group. She combined her passions of microbiology and food into a research program that has the goal of using cheese as a way to understand microbial ecosystems.

Cheese is home to a fascinating assortment of microbes—from bacteria, yeasts, and molds to microscopic mites. These microbes all play an important role in making cheese a delicious and diverse food. Her lab is studying cheeses from around the world and looking at how cheese microbes interact with each other to form communities. In addition, the lab is collaborating with chefs (David Chang, Momofuku) and cheesemakers (Jasper Hill Farm, VT) to develop fermented foods using native microbes.

Working at the intersection of food and science has also allowed Dutton to pursue her interests in science communication and outreach. She has been a speaker at events such as the World Science Festival, and she regularly presents classes to the general public on the science of cheese and other fermented foods. Research from the Dutton lab has been featured in Lucky Peach Magazine, the PBS television series The Mind of a Chef, The Boston Globe, and The New York Times as well as on National Public Radio.