




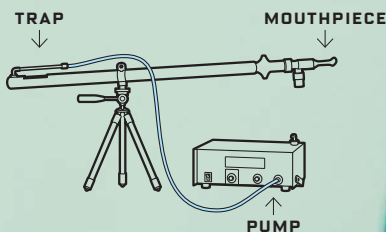
BY PETER ANDREY SMITH

 ADAM KRAUSE

SOMETHING IN THE AIR

DETECTING SICKNESS ON OUR BREATH

BREATHE OUT. The air you exhaled holds clues to your health, and Michael Phillips has devoted decades to figuring out what they mean. His lab, Menssana Research, can identify about 2,000 chemical compounds in exhalations that reveal what's in our bloodstream—including signs of cancer and radiation exposure. "As a physician, I always said, wouldn't it be nice if we could use breath testing to diagnose diseases? It shouldn't be too difficult, right?" ¶ It was, of course. After trying—and failing—to isolate uncontaminated samples in balloons and bags, Phillips developed a system consisting of a steel tube and a pump that captures samples for analysis. Menssana is now doing studies to get its tests approved for disease diagnostics. Meanwhile, Phillips is working on new devices. A clear shroud called the BreathDome hangs from the ceiling in his office. "Stand here, watch TV, read a magazine, and we collect the sample," he says. You just breathe easy.



The pump draws breath into a thin trap; now it's ready for analysis by gas chromatography and mass spectrometry.

