Q&A
Which mentor had the biggest impact on your career and why?
Most of us can point to at least one person in our lives who helped shape who we are. Perhaps it was an enthusiastic track coach or a nurturing physics teacher. Below, four scientists discuss some of their favorite mentors and what made them so significant.

Edited by Nicole Kresge

Sarah C. R. Elgin
HHMI Professor
Washington University in St. Louis
I’ve had several great mentors, including my thesis advisor, James Bonner, and my postdoc advisor, Leroy Hood. But my high school chemistry teacher, George Birrell, had the biggest impact. He helped us do experiments demonstrating that the physical laws really do work and that the world has some predictability. And he provided my first opportunity to do research. At his suggestion, I started collecting rainwater every time the Soviets or Chinese exploded a nuclear bomb above ground. I was delighted to find that I could use a Geiger counter to detect when the resulting cloud of radioactivity passed over Oregon!

Hopi E. Hoekstra
HHMI Investigator
Harvard University
I’ve had three great mentors. My undergraduate advisor, Robert Full, helped me fall in love with the research process—his enthusiasm is contagious and his support unrelenting. My graduate advisor, Scott Edwards, gave me freedom to pursue my interests and forge my own research path. And my postdoctoral advisor, Michael Nachman, taught me to think clearly and write efficiently, and by example, prepared me to be an independent investigator. All three gave me space to explore my interests, encouraged me to try new approaches, and allowed me to make mistakes. At the same time, they gently steered me back on track when I veered too far off course. It’s a delicate balance, and one I try to achieve with my own students.

Thumbi Ndung’u
International Early Career Scientist
University of KwaZulu-Natal
If I had to make a choice, it would be Professor George Kinoti of the University of Nairobi, in Kenya, where I started my research career. A tough but competent leader filled with integrity, he taught me to believe in myself and in Africa’s great potential. George cared deeply about the people that science could impact. He set me on a path of inquisitiveness and service that has also been keenly influenced by Max Essex, Jerry Coovadia, and Bruce Walker. Their insights and doggedness in scientific investigation, along with their application of science for the greater good of humanity, have been refreshing and energizing.

Thomas R. Cech
HHMI Investigator
University of Colorado Boulder
I entered Berkeley as a physical chemistry grad student, but as I surveyed my research options I realized they didn’t fit my temperament. Lucky for me, I found John Hearst. This young, bearded professor had been trained at Caltech as a physical chemist, but was now volcanically enthusiastic about eukaryotic chromosomes and repetitive DNA sequences. Hearst was really smart, solving differential equations in a flash, but more important were his personal characteristics. He expected his students to be independent, really listened to them, enjoyed yielding to a student’s idea if it seemed better than his own, and was exuberant about good data. And he was generous: There was always room for one more at his Thanksgiving table.