Professor David Reich is regarded one of the world's leading pioneer in analysing ancient human DNA. He received a bachelor's degree in physics in 1996 from Harvard College and a PhD in Zoology St Catherine's College, University of Oxford in 1999. His doctoral research focused on 'genetic analysis of human evolutionary history with implications for gene mapping', incorporating mathematics, human evolution, human population genetics and disease. Reich completed his postdoctoral work at the Whitehead Institute/MIT Centre for Genome Research where he worked with population history to gain insights into risk factors for certain diseases.

In 2003 Reich accepted a position at the Harvard Medical School Department of Genetics. He became tenured in 2011, the same year in which he produced the most complete human genetic map known at that point in time in a project co-led with statistician Simon Myers. Reich subsequently became a Howard Hughes Medical Institute Investigator in 2013 during which he built the first state-of-the-art ancient DNA lab in America for studying genome-wide human DNA.

Reich's laboratory develops methods for analysing data from modern and ancient DNA. The research team had a central role in the Neanderthal genome project and is responsible for many discoveries including identifying changing population structures and admixture events. This included studying migrations and mixing of ancient populations in Europe and South Asia from which correlations to the archaeological and linguistic record could be examined. They also identified imprints on the human genome possibly indicative of natural selection correlated to the introduction of agriculture. Current work focuses on 'building an ancient DNA atlas of humanity' by developing a three-dimensional framework, making ancient DNA analysis accessible to archaeologists, improving overall understanding of population movement, mixture, and adaption, and identifying disease within human populations.

In a 2015 Nature article Reich was described as 'one of the 10 people who matter in all of science'. He has an array of awards, including being named co-recipient of the 2017 Dan David Prize in archaeology and natural sciences in recognition of his discovery that Neanderthals and humans interbred. Reich collaborated with Svante Pääbo, founder of the Max Planck Institute for Evolutionary Anthropology in Germany, for this project and significantly changed our understanding of human evolution. Other prestigious prizes include the Genzyme Outstanding Achievement in Biomedical Research Award 2007, the Newcomb Cleveland Prize 2010, the NAS Award in Molecular Biology 2019, the Wiley Prize 2019, the Darwin-Wallace Medal 2019, and the Hermann J. Muller Award 2020.

In 2018 Reich published his book 'Who We Are And How We Got Here' which details advances in understanding the human past through discoveries made from comparison of ancient and modern DNA. It highlights population mixture as being instrumental for recording past human migrations.