Michael Stuart Brown was born on April 13, 1941, in Brooklyn, New York. In 1962, Brown graduated from the College of Arts and Sciences of the University of Pennsylvania. In 1966, he received his M.D. degree from the University of Pennsylvania School of Medicine. For the next two years, he worked as an intern and resident in Internal Medicine at the Massachusetts General Hospital in Boston.

From 1968 to 1971, Brown worked at the National Institutes of Health where he served initially as Clinical Associate in gastroenterology and hereditary disease. In 1966, he received his M.D. degree from the University of Pennsylvania School of Medicine. For the next two years, he worked as an intern and resident in Internal Medicine at the Massachusetts General Hospital in Boston. Later, he joined Southwestern’s staff in 1972. They began researching cholesterol metabolism, focusing on familial hypercholesterolemia, a genetic condition that affects 1 in 500 people. Sufferers of this condition have abnormally high levels of cholesterol in their blood, and fall victim at an early age to heart attacks and strokes.

While working with Joseph L. Goldstein at Southwestern Medical School, Brown made some major breakthroughs in the scientific understanding of familial hypercholesterolemia—a hereditary disease which elevates the cholesterol level in the blood. In several papers published beginning in 1974, Brown and Goldstein showed that patients with homozygous hypercholesterolemia tend to have high levels of low-density lipoprotein (LDL), and that these patients lack an LDL receptor. They also identified and located the specific gene responsible for LDL receptor production, and published beginning in 1974, Brown and Goldstein showed that patients with homozygous hypercholesterolemia tend to have high levels of low-density lipoprotein (LDL), and that these patients lack an LDL receptor. They also identified and located the specific gene responsible for LDL receptor production, and discovered the gene mutations responsible for familial hypercholesterolemia and other inherited cholesterol metabolism conditions. They have received many awards for this work, including the U.S. National Medal of Science and the Nobel Prize for Medicine or Physiology.

Brown and his wife, Alice, have two daughters: Elizabeth and Sara.