In 2011, 27-year-old Sonia Vallabh learned the results of a genetic test. She carries a mutation for a rare brain disease. Barring a medical breakthrough, she is destined to develop dementia and die in her 50s. Her fate hinges on a single change among three billion DNA bases in her genome. It seemed incredible, Sonia says, “that this one change could be so dangerous.”

For most of the history of medicine, all that doctors could do—if they could do anything at all—was to treat symptoms. But now, an elite cadre of pioneers—call them gene doctors—is devising treatments that for the first time target the root causes of genetic illnesses.

We’ll meet a girl who is saved from blindness by an experimental treatment that in 2017 became the first approved gene therapy in the U.S.

We follow the story of two brothers with muscular dystrophy whose decline has been arrested thanks to a new drug granted accelerated approval by the FDA in September 2016. And we’ll get to know a girl with cystic fibrosis who was spared the ordeal of a lung transplant thanks to an entirely new kind of drug that targets the molecular flaw that causes her disease. But all of these treatments are just a first wave. A revolutionary new technology called CRISPR promises to enable physicians to edit and repair broken genes with pinpoint precision.

Sonia Vallabh expects 20 years of good health before the symptoms of her disease appear. So she has time. But she also has timing: she was diagnosed at a time of accelerating progress against some of the worst diseases known to medicine. Sonia decided to put aside her Harvard law degree to pursue a PhD in biology. She wants to join the ranks of the gene doctors in a search for her own cure.