Antibodies are large, characteristic Y-shaped molecules and arguably one of the most iconic structures in all of science. They are produced by plasma cells of the immune system and have the ability to specifically bind almost any limitless variety of target molecules, which enables them to neutralize toxins and pathogens like bacteria or viruses. Antibodies were originally described in the late 1800s as the active component of antiserum and as such are a key component of most types of immune response. In ground-breaking work in the 1970s, scientists developed techniques to produce antibodies of a defined specificity artificially and in vast quantities outside of the body; these ‘monoclonal antibodies’ paved the way for the widespread use of antibodies as a research tool. More recently, monoclonal antibodies are proving themselves to be remarkably effective in the clinic, particularly for the treatment of certain types of cancer and autoimmune disease. As of 2015, the global monoclonal antibody market is estimated at US $75 billion, and this figure is projected to increase substantially over the coming years. This poster provides an overview of important historical milestones in the discovery of antibodies and their development as therapeutics.