**Watch the Ted Talk with James Watson.**

1. What was James Watson’s major at the University of Chicago, and what was his career plan?
   1. He majored in economics and planned to be a professor.
   2. He majored in zoology and planned to be an ornithologist.
   3. He majored in organic chemistry and planned to be a pharmaceutical researcher.
   4. He majored in criminology and planned to be a homicide detective.
2. As Watson and his colleague Francis Crick tried to decipher the structure of DNA, Watson says they decided to “not solve it in rigorous fashion.” Instead of employing the usual avenues to identify the molecule’s components, they quickly assembled models using rough coordinates taken from x-ray crystallography. Why was there a need for this rapid prototyping? What was dictating the pace of their work?
3. Who was Maurice Wilkins, and how was he important to Watson’s story?
   1. He was the head of the Medical Research Council in the U.K. and introduced Watson to Francis Crick.
   2. He was an organic chemist who defected from Linus Pauling’s laboratory and came to the U.K. to collaborate with Watson, Crick and Franklin.
   3. He was a biophysicist who introduced Watson to x-ray diffraction as a method to study DNA.
   4. He was Watson’s doctoral advisor at Indiana University and told Watson he would never make it in molecular biology.
4. What does Watson’s “insider’s view” illuminate about working within the scientific community? What surprised you about this, if anything?
5. Paraphrase Wilkins and Franklin’s reaction to Watson and Crick’s initial three-stranded model:
   1. “LOL. Wait. Seriously?”
   2. “Righteous, dudes.”
   3. “Faster! They’re gaining on us!”
   4. “Huh”
   5. “Just smile and nod and back away slowly.”
6. At the time of his TED Talk, Watson was excited about identifying the genetic components for many diseases. For a handful of these diseases, like Huntington’s chorea, we can test for the faulty gene – but there’s still no way to alter the courses of the disease or cure it. For other diseases like Alzheimer’s, genetic testing may suggest that someone is predisposed for the condition, but not guarantee that it will develop. In each case – would you want to know? Why or why not?
7. What was the RNA Tie Club?
   1. A secret society of American scientists working in the U.K.
   2. The movement Watson led to abolish the dress requirement for the dining hall at the Cavendish Laboratory.
   3. A barbershop chorus organized by Watson, comprised entirely of fellow researchers.
   4. A group of researchers interested in DNA transcription and translation.
8. Why didn’t Watson patent his discovery in 1953?
   1. He’d signed an agreement saying that his employer, Cavendish Laboratory, would get any patents resulting from his work.
   2. Extremely bad legal advice
   3. Nobody seemed to care about his discovery, and he didn’t think there was any money to be made from it
   4. He couldn’t demonstrate any immediate use for it
   5. Stanford University paid him an undisclosed fortune to let them file for the patent instead
9. At the time of his TED Talk in 2005, James Watson was researching possible genetic component(s) of autism. His early findings suggested that “a lot of autistic kids are autistic because they just lost a big piece of DNA.” What have we learned about the genetics of autism since that time? Check one of these resources and explain.

<http://www.scientificamerican.com/article.cfm?id=autism-genetic-mutations>

<http://articles.latimes.com/2011/jul/05/health/la-he-autism-20110705>

<http://commonhealth.wbur.org/2011/07/autism-genetics-vs-environment/>

<http://today.msnbc.msn.com/id/44779678/ns/today-today_health/t/super-social-gene-may-hold-clues-autism-other-disorders/>