Module 2 Quiz

1. A variety of in vitro assays are needed in drug discovery and development. It is best to have assays that complement each other and are selected based on the information you have about the biology of a particular disease.
    a. True
    b. False
2. Please fill in the blank with either" phenotypic" or "target-based":
   _____ drug discovery is a systems-based approach using a target agnostic assay that monitors disease relevant phenotypic changes.
3. Please fill in the blank with either" follower" or "first-in-class":
   _____ drug discovery is when the starting point is defined by a molecular target that is hypothesized to have an important role in disease.
4. Only 10% of compounds that enter phase 1 clinical trials become approved drugs and even when compounds advance to later stage (phase 3) clinical trials around 50% fail to become drugs.
    a. True
    b. False

Answer Key

1. True
   In his talk, Dr. Ferrer discusses developing in vitro assays for two common drug discovery and development approaches - phenotypic-based and target-based. Remember it is not deciding between phenotypic vs. target-based but rather considering both phenotypic and target-based approaches as these each have different starting points, strengths, and limitations but complement each other.
2. Phenotypic
3. First-in-class
4. True
   Nine out of ten promising therapeutic candidates that enter clinical trials fail to lead to a treatment or cure. In addition, studies have found that around 50% of novel therapeutics fail in phase 3 trials, with many failing due to inadequate efficacy.