I. Work as an adjunct professor at the University of Utah.
   A. Typically works with one student at a time in their 4th year as they prepare for a residency in industry.
   B. Many different residencies available at the U., and it is becoming more common for students to do residencies.
   C. Part of an increasing trend in required education and training. It once was rare for a pharmacy student to receive the pharm. D degree, and now it the norm.
   D. A clinical doctorate is a degree that is awarded to students through performing clinical rotations.

II. Job Description
   A. Clinical pharmacist and hospital pharmacists often work long and awkward hours.
   B. Enjoys working as a clinical pharmacist in industry much more than as a clinical pharmacist at a hospital.
   C. Clinical pharmacists must be very accurate in their advice to cardiologist. Credibility depends upon it.
   D. Industry is highly regulated by the FDA
   E. It used to be that junior pharmacist acquired information from more senior pharmacist in the organization. Now the acquiring of information has become more evidence-based. Meaning pharmacist now search the literature on clinical trials, using a computer.

III. Clinical Studies (Research & Development)
   A. Official title: Senior Regional Medical Scientist. There are only 24 of these positions in the U.S.. He has an office at his home and is stationed out of the IHC in SLC, but services all of Utah and its surrounding states.
   B. As a clinical pharmacist he spends all his time in consultation with nurses and physicians. Never even touches medicines.
   C. He is not a salesman, but serves as a science support on products sold to hospitals and healthcare personnel.
   D. His main specialty is in cardiovascular clinical trials.
   E. Cardiovascular disease and diabetes are two areas where progress is slow in coming. As a society we tend to be complacent in treating heart disease, compared to treating cancer.
F. The main medications in treating heart disease are beta blockers. Of the many beta blocker drugs on the market, the best one is carvedilol, which not only binds 3 different enzyme receptor sites but also has auxiliary effects.

G. Beta blockers function by slowing down heart rate. It was once thought that administration of beta blockers to patients in late stages of heart disease would be fatal. Clinical studies have shown the opposite effect in that the drugs actually prolong life.