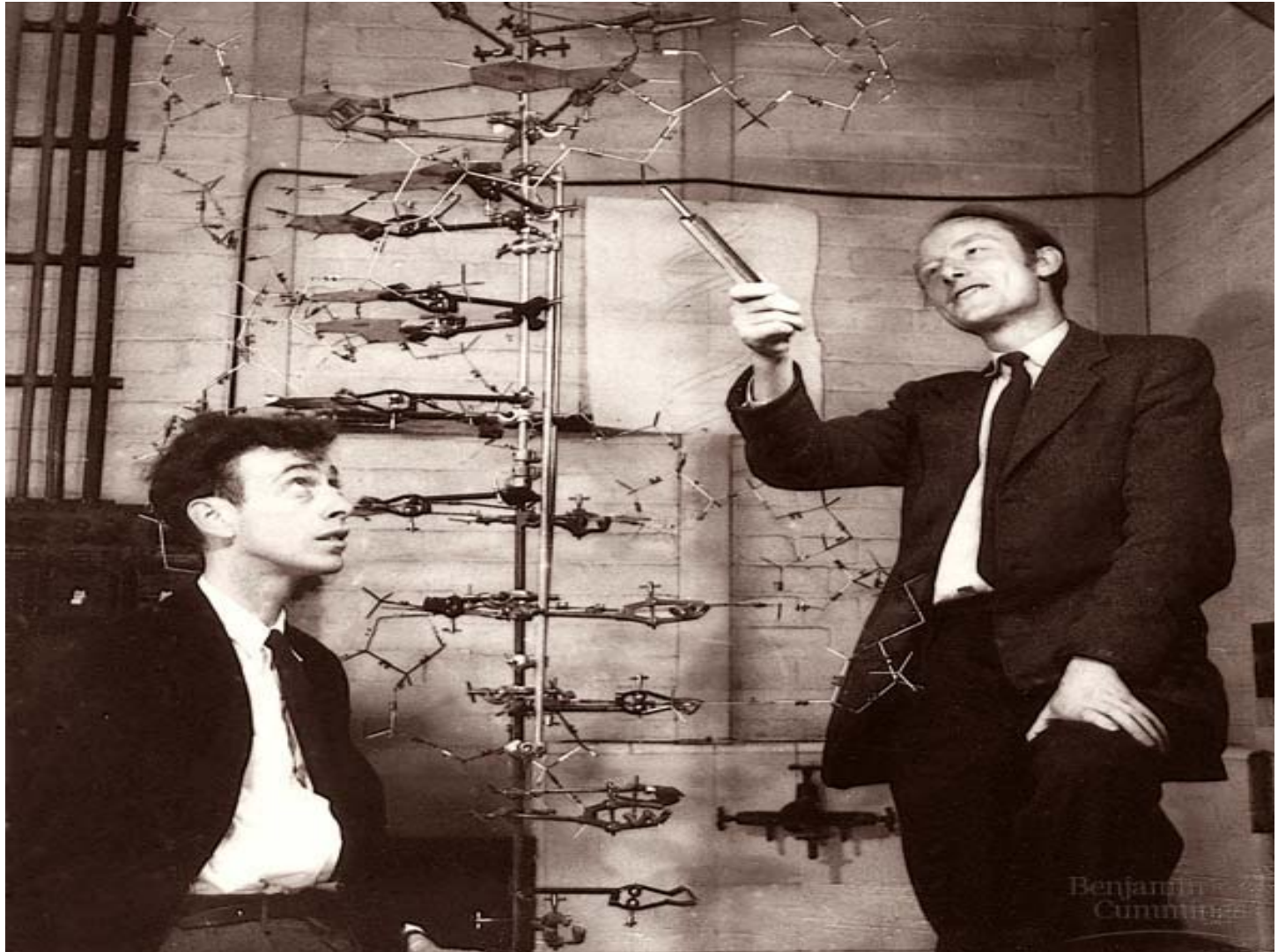


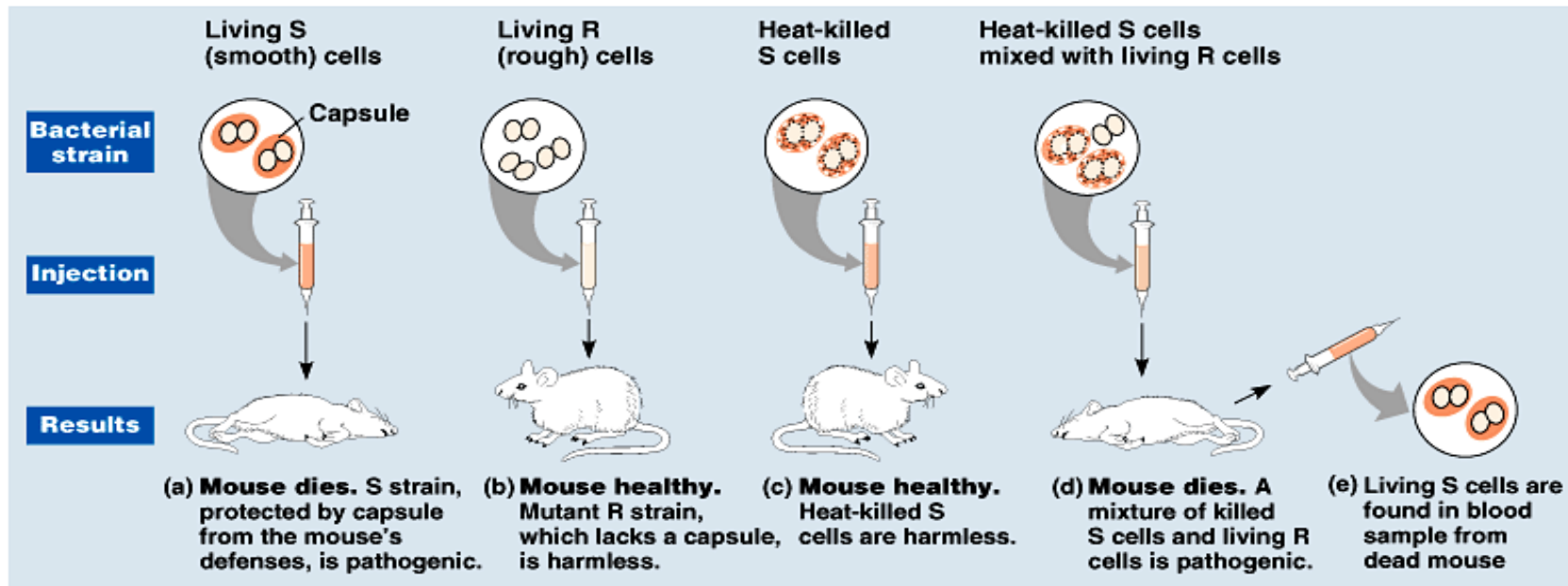
# DNA Structure



Benjamin  
Cummings

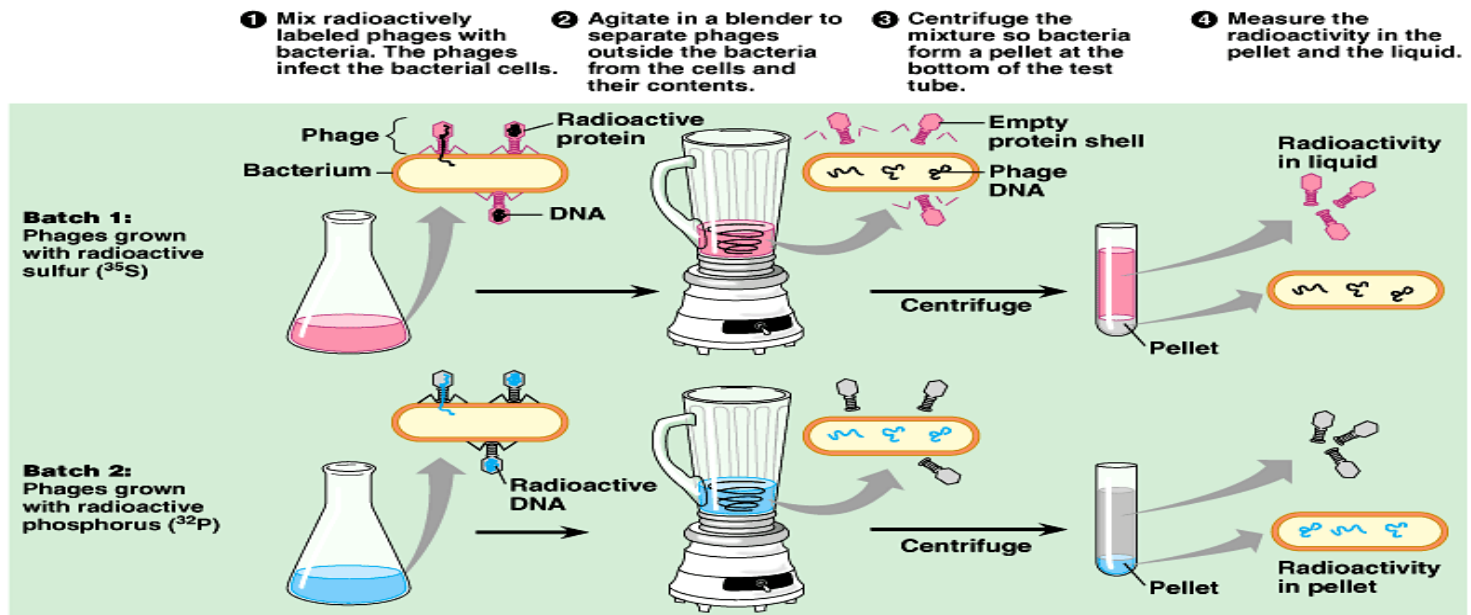
# Searching for Genetic Material

- Mendel: modes of heredity
- Griffith: transformation
- Avery: transformation agent was DNA



# Searching for Genetic Material

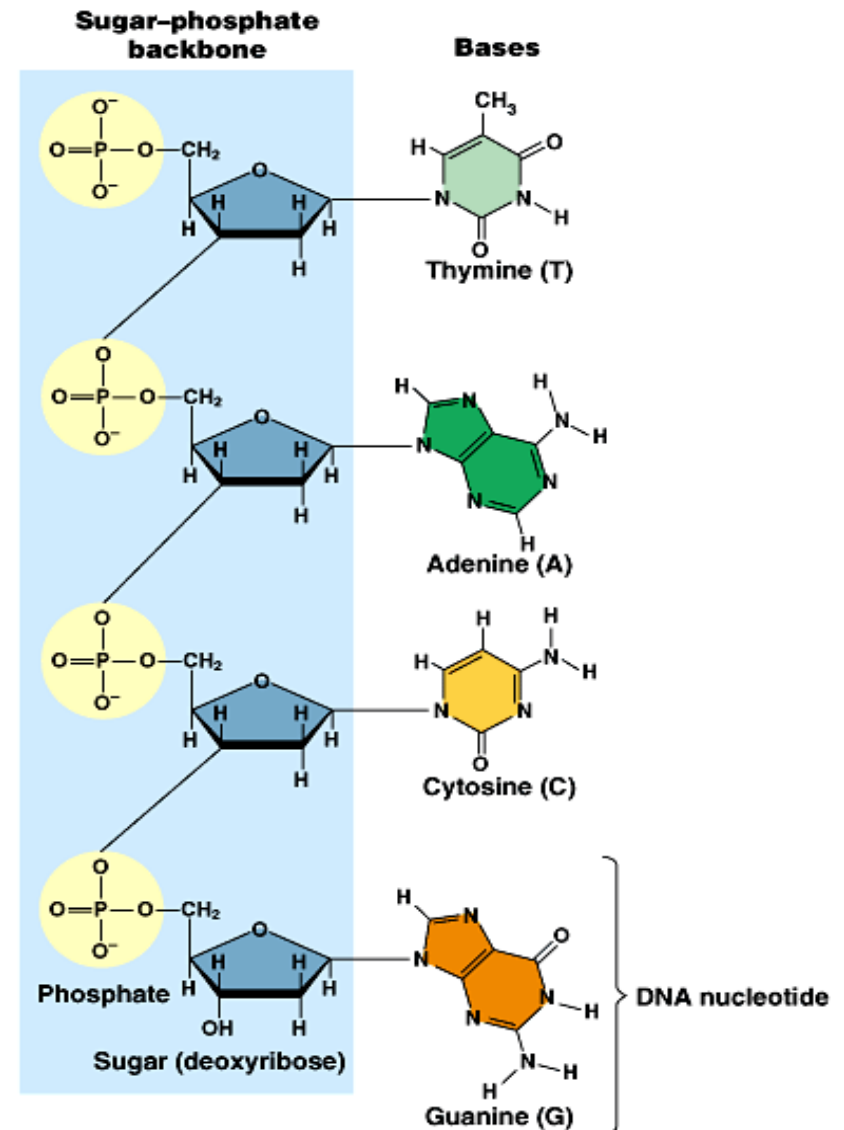
- Hershey and Chase
- bacteriophages (phages)
- DNA, not protein, is the hereditary material
- Expt: sulfur(S) is in protein, phosphorus (P) is in DNA; only P was found in host cell



(b) The experiment showed that T2 proteins remain outside the host cell during infection, while T2 DNA enters the cell.

# DNA Structure

- Chargaff: ratio of nucleotide bases (A=T; C=G)
- Watson & Crick
- The Double Helix
- Nucleotides: nitrogenous base (thymine, adenine, cytosine, guanine); sugar deoxyribose; phosphate group



# DNA Bonding

- Purines:
  - ‘A’ & ‘G’
- Pyrimidines:
  - ‘C’ & ‘T’
- ‘A’ bonds with ‘T’
- ‘C’ bonds with ‘G’

