

Biotechnologies



Βιοτεχνολογία Biotechnology

- Systematic Treatment of the Life Arts
- Webster's New College Dictionary
The aspect of technology concerned with the application of scientific and engineering data relating to man and the machine.

Healthcare Theories

- Biomedicine
 - Western—The Scientific Method
 - Seek Root Causes (Germ Theory)
 - Viruses & Bacteria
 - Laboratories
 - Treatments
 - Statistics



Healthcare Theories

- Personalistic Systems
 - Soul-based; Religious Ideologies
 - External Good & Malevolent Powers
 - God, Angels, & Saints
 - Ghosts, Spirits, & Demons
 - Life & Death based upon Faith & Fate

Healthcare Theories

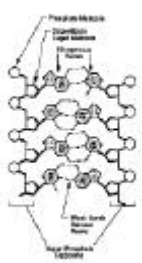
- Naturalistic
 - Herbal Remedies (Folk Remedies)
 - Hot & Cold Treatments
 - “Humors”—Body Fluids & Health
 - Willow Bark
 - Biodiversity Treaty, Rain Forests, and Multinational Pharmaceuticals

Human Genome Project

- \$3 Billion (\$2 billion by U.S.)
- 50,000 to 100,000 Genes
- 23 Chromosome Pairs
 - 3 Billion Codes
 - Goal is to define and understand the genetic sequences: RNA⇒proteins

DNA—The Building Blocks of Life

- Deoxyribonucleic Acid
- 4 Components
 - Adenine & Thymine
 - Guanine & Cytosine



Gee-wiz Statistics

- DNA—3,000,000,000 (3 billion) pairs.
- *Encyclopedia Britannica*—280 million letters.
- *Unabridged Dictionary*—76 million letters equals the DNA sequence of the **smallest** chromosome.
- 46 volumes of each book in **each** cell.