

Scientific Progress
Medicine
(1870-1914)

- I. Louis Pasteur (1822-1895)
 - A. Frenchman – not a physician
 - B. Born Dec. 27, 1822 in eastern France
 - C. In 1847 (25 years old) earned his Doctor of Science Degree in physical science
 - D. 1849 Professor of Chemistry at Universe of Strasbourg
 - E. Fermentation (1857)
 - 1. Due to the activity of minute organisms
 - 2. Experimented with milk and beer
 - 3. Fermentation occurred when organisms present
 - F. Bacteriology (1864)
 - 1. spontaneous generation
 - 2. Pasteur ‘s Law of Biogenesis – all known forms of life come from pre-existing life
 - 3. (Darwin’s On the Origin of Species by Means of Natural Selection, Nov. 24, 1859)
 - G. Pasteurization
 - H. Germ Theory of Disease
 - 1. Law of Biogenesis led to the Germ Theory of Disease
 - 2. Anthrax

- II. Robert Koch (1843-1910)
 - A. German obscure country physician
 - B. Discovered rod like organisms in the blood of infected cattle
 - C. Experimented with mice
 - D. Discovered organisms that caused eleven diseases: tuberculosis, cholera, diphtheria, etc.

- I. (cont.) Pasture
 - 3. Experimented with cattle with anthrax
 - 4. Developed an inoculation for anthrax

- I. Rabies

- III. Joseph Lister (1827-1912)
 - 1. Edward Jenner (1796) developed a vaccine against smallpox
 - 2. Ether as a general anaesthetic
 - 3. 1847 a Hungarian physician advocated washing hands
 - 4. Lister, Father of antiseptic surgery