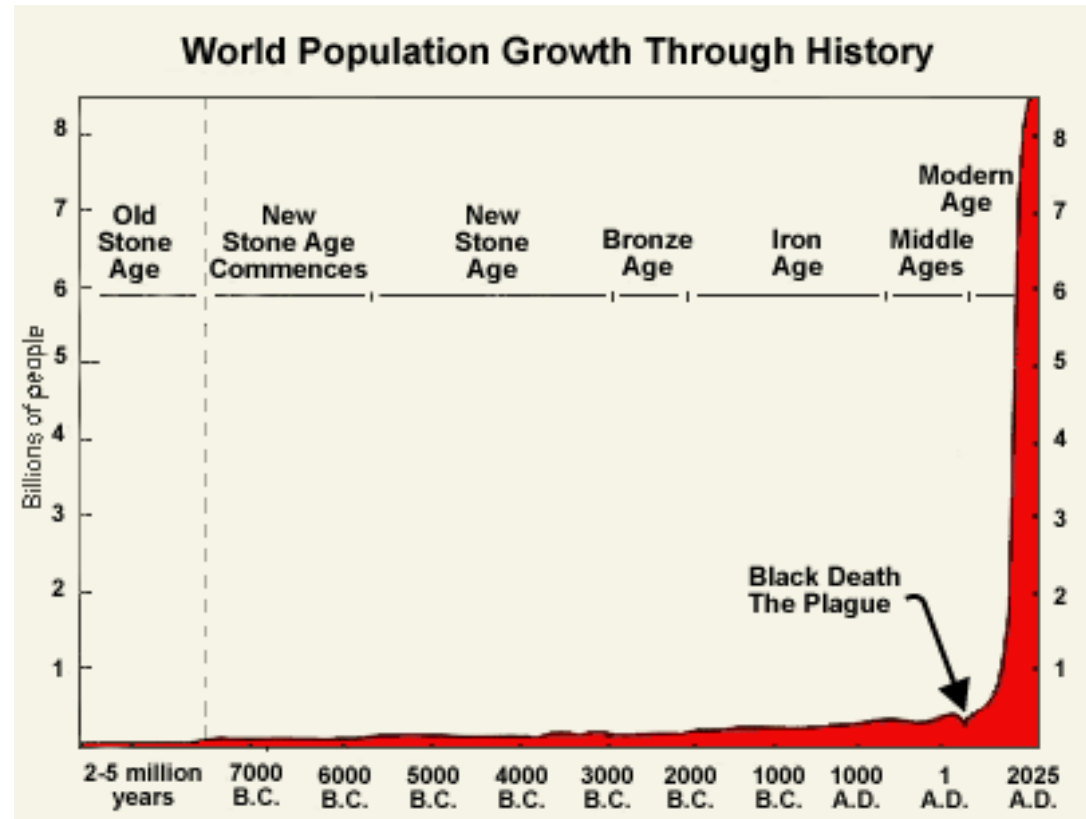


‘The History and the Role of Medicine and Nephrology in East Asia and its Commitment at 21st Century’

Keynote Lecture at
the 30 years of Nephrology of Seoul
National University College of Medicine

Human population

1AD	2-300 million
1500AD	500 million
1900AD	1.6 billion
1970AD	3.0 billion
1980AD	4.0 billion
2000AD	6.4 billion
2050AD	9.0 billion



Source: savingtheearth.net

Life Expectancy at Birth

1AD	Roman Empire	25 years
1900	Europe, Japan, US	40-45 years
2000	Japan and elsewhere	80 years

The Economist

DECEMBER 13TH-19TH 2003

www.economist.com

The future of flight

PAGES 75-77

Russia's broken democracy

PAGES 22-24

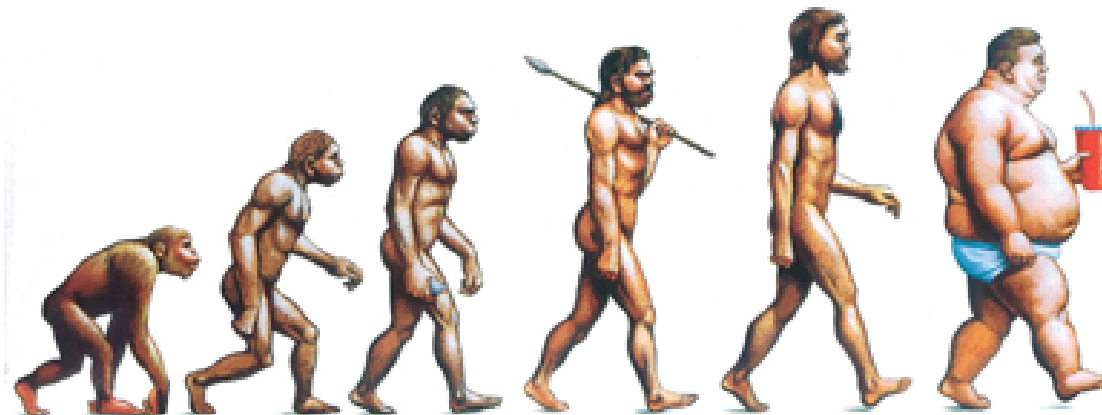
The great "offshoring" scare

PAGES 14 AND 65-67

A SURVEY OF FOOD

AFTER PAGE 50

The shape of things to come



Medical Sciences and Practice

14 th Century	Plague in Europe
1798	Small pox (cowpox) vaccination by Jenner
Late 19 th and 20 th century	Identification of many bacteria and other pathogens; Pasteur, Koch, Behring, Kitasato,
1928	Penicillin by Fleming
Mid-20 th Century	Streptomycin, Polio vaccine, organ transplantation, cardiac catheterization, DNA structure, in vitro fertilization, CT, MRA, etc.
2000	Decoding human genome, molecular genetic technologies, epigenetics, stem cells,,,

Medical Sciences in 20th Century -1

Infectious Disease, Nobel Laureates

1901	Behring	Diphtheria
1902	Ross	Malaria
1905	Koch	Tuberculosis
1907	Laveran	Malaria
1908	Mechnikov, Ehrlich	Immunity
1928	Nicolle	Typhus
1945	Fleming, Chain, Florey	Penicillin
1952	Waksman	Streptomycin



Medical Sciences in 20th Century -2

Principle of Life, Nobel Laureates

1910	Kossel	Proteins and nucleic acids
1930	Landsteiner	ABO blood type
1931	Warburg	Cell respiration
1947	Cori and Cori	Glycogen metabolism
1953	Lipmann and Krebs	TCA Cycle and Intermediary Metabolism
1923, 1929, 1934, 1937, 1943, 1950		vitamins and hormones



20th Century

- Global wars
- Science and technology and changes in the way of our life
- Medical and life sciences and human population
- Urbanization; life style, disease pattern, ageing society



Challenges in the 21st Century

- Human Population
- Environment
- North-South Disparity



Dr. Gozo Sato (1880-1960)



- Devoted his life to the modern time Korean medical education, from 1907 to 1945