

Medical Research History ^[1]

Anonymous ^[2]37K reads

Here is a collection of medical research history.

Ancient Medicine

Medical Research History

The history of medicine is a long and distinguished one, as healers sought to alleviate illnesses and fix injuries since the dawn of humanity. Ancient Medicine ^[3] includes shamen and pagan priests used a blend of rituals and medical techniques, to cure ailments.

Islamic Medicine

The Islamic Golden Age, spanning the 8th to the 15th Centuries, saw many great advances in science, as Islamic scholars gathered knowledge from across the known world and added their own findings. One of these important fields was Islamic medicine ^[4], which saw medical practice begin to resemble our modern systems.

Andreas Vesalius and Modern Human Anatomy

Before Andreas Vesalius ^[5], the human anatomy was not learned by studying or dissecting bodies. Much of the knowledge was fictional, chiefly contributed by Galen over a millennium ago.

Discovery of Pasteurization

Louis Pasteur is regarded as one of the greatest saviors of humanity. He made numerous discoveries but he is best remembered for his advocacy of the germs theory and the following discovery of pasteurization ^[6].

Discovery of Bacteria

Antony van Leeuwenhoek is regarded as the father of microbiology. Van Leeuwenhoek is known for the discovery of bacteria ^[7].

Semmelweis and Hand Washing

Ignaz Semmelweis introduced hand washing ^[8] standards after discovering that the occurrence of puerperal fever could be prevented by practicing hand disinfection in obstetrical clinics. He believed that microbes causing infection were readily transferred from patients to patients, medical staff to patients and vice versa.

Edward Jenner and Development of Vaccination

Edward Jenner [9] developed and generalized the vaccination technique against the dreadful smallpox disease. Although he did not originate the idea of cowpox attack to confer immunity against smallpox, yet it was his experiments and investigations which transformed a traditional belief into standard procedure to save innumerable millions of lives.

The History of Anesthesia

Research on modern techniques to reduce surgical pain began when an English scientist Joseph Priestley (1733-1804) discovered that inhalation of nitrous oxide might relieve pain. This introduced the development of modern anesthesia [10].

The Discovery of X-Ray Beams

While Wilhelm Conrad Roentgen [11] was experimenting, he observed that certain rays were emitted during the passing of the current through discharge tube. This discovery led to the development of the X-ray.

The Discovery of Antibiotics

As a result of some intelligent serendipity, Alexander Fleming stumbled on discovering penicillin [12].

Who Discovered Dna?

Wilkins, Crick and Watson got the Nobel Prize for their DNA discovery and development [13] of the DNA theory.

Human Genome Project

The Human Genome Project [14] (HGP) was a collaborative scientific research program on international scale conducted to discover all the chemical base pairs which make up human DNA for further biological studies. Its primary goal was to map and identify both physically and functionally, the approximately 20,000-25,000 genes of the human genome.

Some of the Nobel Prizes in 'Medicine or Physiology'

1981 Nobel Prize in 'Medicine or Physiology'

Discoveries Concerning the Visual System [15]

Winners: David H. Hubel and Torsten N. Wiesel

Functional Specialization of Cerebral Hemispheres [16]

Winner: Roger Sperry

1982 Nobel Prize in 'Medicine or Physiology'

Discovery of Prostaglandins [17]

Winners: Sune K. Bergstrom, Bengt I. Samuelsson & John R. Vane

1983 Nobel Prize in 'Medicine or Physiology'

Discovery of Mobile Genetic Elements [18]

Winner: Barbara McClintock

1991 Nobel Prize in 'Medicine or Physiology'

Discovery of the function and mechanisms behind ion channels in cells [19]

Winners: Erwin Neher & Bert Sakmann

1992 Nobel Prize in 'Medicine or Physiology'

Discovery of reversible protein phosphorylation [20]

Winners: Edmond H. Fischer and Edwin G. Krebs

1993 Nobel Prize in 'Medicine or Physiology'

Discovery that genes in higher organisms do not present as single, continuous strand DNA but rather, the genes present as segments [21]

Winners: Richard J. Roberts & Phillip A. Sharp

1994 Nobel Prize in 'Medicine or Physiology'

The Role of G-Proteins in Signal Transduction [22]

Winners: Alfred G. Gilman & Martin Rodbell

1995 Nobel Prize in 'Medicine or Physiology'

Discovery of the Genetic Control of Embryonic Development [23]

Winners: Edward B. Lewis, Christiane Nueslein-Volhard and Eric F. Wieschaus

1996 Nobel Prize in 'Medicine or Physiology'

Discoveries of the specificity of the cell mediated immune defence [24]

Winners: Peter C Doherty and Rolf M Zinkernagel

1997 Nobel Prize in 'Medicine or Physiology'

Discovery of Prions - a new biological principle of infection [25]

Winner: Stanley B. Prusiner

1998 Nobel Prize in 'Medicine or Physiology'

Discoveries of nitric oxide as a signaling molecule in the cardiovascular system [26]

Winners: Robert F. Furchgott, Louis J. Ignarro and Ferid Murad

1999 Nobel Prize in 'Medicine or Physiology'

Discovery that proteins have intrinsic signals that govern their transport and localization in the cell [27]

Winner: Günter Blobel

2000 Nobel Prize in 'Medicine or Physiology'

Discoveries of signal transduction in the nervous system [28]

Winners: Arvid Carlsson, Paul Greengard and Eric R. Kandel

2001 Nobel Prize in 'Medicine or Physiology'

Discoveries of key regulators of the cell cycle [29]

Winners: Leland H. Hartwell, Tim Hunt and Sir Paul M. Nurse

2002 Nobel Prize in 'Medicine or Physiology'

Discoveries concerning 'genetic regulation of organ development and programmed cell death'

[30]

Winners: Sydney Brenner, H. Robert Horvitz and John E. Sulston

2003 Nobel Prize in 'Medicine or Physiology'

Discoveries concerning magnetic resonance imaging [31]

Winners: Paul Lauterbur and Sir Peter Mansfield

2004 Nobel Prize in 'Medicine or Physiology'

Discoveries of odorant receptors and the organization of the olfactory system [32]

Winners: Richard Axel and Linda B. Buck

2005 Nobel Prize in 'Medicine or Physiology'

Discovery of the bacterium Helicobacter pylori and its role in gastritis and peptic ulcer disease

[33]

Winners: Barry J. Marshall and J. Robin Warren

2006 Nobel Prize in 'Medicine or Physiology'

Discovery of RNA interference - gene silencing by double-stranded RNA [34]

Winners: Andrew Z. Fire and Craig C. Mello

2007 Nobel Prize in 'Medicine or Physiology'

Discoveries of principles for introducing specific gene modifications in mice by the use of embryonic stem cells [35]

Winners: Mario R. Capecchi, Sir Martin J. Evans and Oliver Smithies

2008 Nobel Prize in 'Medicine or Physiology'

Discovery of human papilloma viruses causing cervical cancer ^[36]

Winner: Harald zur Hausen Discovery of human immunodeficiency virus (HIV): The Cause of AIDS ^[37]

Winners: Françoise Barré-Sinoussi and Luc Montagnier

2009 Nobel Prize in 'Medicine or Physiology'

Discovery of how chromosomes are protected by telomeres and enzyme telomerase ^[38].

Winners: Elizabeth Blackburn, Carol Greider and Jack Szostak.

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Links

- [1] <https://staging.explorables.com/en/medical-research-history>
- [2] <https://staging.explorables.com/en/users/oskar>
- [3] <https://staging.explorables.com/ancient-medicine>
- [4] <https://staging.explorables.com/islamic-medicine>
- [5] <https://staging.explorables.com/andreas-vesalius>
- [6] <https://staging.explorables.com/discovery-of-pasteurization>
- [7] <https://staging.explorables.com/discovery-of-bacteria>
- [8] <https://staging.explorables.com/semmelweis-germ-theory>
- [9] <https://staging.explorables.com/who-invented-vaccination>
- [10] <https://staging.explorables.com/history-of-anesthesia>
- [11] <https://staging.explorables.com/wilhelm-conrad-roentgen>
- [12] <https://staging.explorables.com/history-of-antibiotics>
- [13] <https://staging.explorables.com/who-discovered-dna>
- [14] <https://staging.explorables.com/human-genome-project>
- [15] <https://staging.explorables.com/visual-system>
- [16] <https://staging.explorables.com/cerebral-hemispheres>
- [17] <https://staging.explorables.com/prostaglandins>
- [18] <https://staging.explorables.com/mobile-genetic-elements>
- [19] <https://staging.explorables.com/function-of-ion-channels>
- [20] <https://staging.explorables.com/reversible-protein-phosphorylation>
- [21] <https://staging.explorables.com/split-genes>
- [22] <https://staging.explorables.com/g-proteins>
- [23] <https://staging.explorables.com/embryonic-development>
- [24] <https://staging.explorables.com/cell-mediated-immune-defence>
- [25] <https://staging.explorables.com/prion-as-an-infectious-agent>
- [26] <https://staging.explorables.com/nitric-oxide-in-cardiovascular-system>
- [27] <https://staging.explorables.com/intrinsic-signals-in-proteins>
- [28] <https://staging.explorables.com/signal-transduction>
- [29] <https://staging.explorables.com/key-regulators-of-the-cell-cycle>
- [30] <https://staging.explorables.com/programmed-cell-death>
- [31] <https://staging.explorables.com/magnetic-resonance-imaging>
- [32] <https://staging.explorables.com/odorant-receptors>
- [33] <https://staging.explorables.com/helicobacter-pylori>
- [34] <https://staging.explorables.com/rna-interference>
- [35] <https://staging.explorables.com/embryonic-stem-cells>
- [36] <https://staging.explorables.com/human-papilloma-viruses>
- [37] <https://staging.explorables.com/human-immunodeficiency-virus>

[38] <https://staging.explorable.com/telomeres-and-enzyme-telomerase>