People @ Virology

Dmitri Iosifovich Ivanovsky - Founders of Virology

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Prof. Ivanovsky(1864-1920)

Prof. Ivanovsky was born on October 28, 1864, Village of Nizy, Gdov Uyezd, St. Petersburg Governorate, Russian Empire. He was a Russian botanist, one of the discoverers of filterable nature of viruses, and thus one of the founders of virology [1].

He studied at the University of St. Petersburg in 1887, and was sent to Ukraine and Bessarabia to investigate a tobacco disease. He discovered that both diseases were caused by an extremely minuscule infectious agent in the Crimea region. The agent was capable of permeating porcelain Chamberland filters, something which bacteria could never do. He described his findings in an article (1892) [2] and a dissertation (1902) [3]. Six years later, Martinus Beijerinck [4], a microbiologist in the Netherlands, replicated Ivanovski's experiment and convincingly showed that the disease was caused by an infectious life form of some kind, which he named virus. Unlike bacteria, however, which can reproduce independently, this life form could only reproduce by infecting tobacco leaves. Beijerinck subsequently acknowledged Ivanovsky's priority of discovery [1].

This mysterious life form became known as tobacco mosaic virus - the first virus to be recognized. Tobacco mosaic virus (TMV) is a positive-sense single stranded RNA virus that infects plants, especially tobacco and other members of the family Solanaceae. TMV was the first virus to ever be discovered. Although it was known from the late 19th century that

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an infectious disease was damaging tobacco crops, it was not until 1930 that the infectious agent was determined to be a virus.

For the great achievement, and the memory of Prof. Ivanovsky, a stamp (See below) was made up by the Union of Soviet Socialist Republics in 1964.

Reference


