Charles Nicolle (1866-1936)

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Charles Nicolle was born in Rouen, France, to a practising physician. He received his medical education in Rouen and completed his graduation from the hospital in Paris. In 1893, he further studied in the Pasteur Institute of Paris, under the direction of Metchnikoff and Roux. In 1902, he was appointed the first director of the Pasteur Institute of Tunis in North Africa, and remained at this post until his death.

Nicolle's investigations concentrated upon infectious diseases indigenous to the southern coast of the Mediterranean Sea, chiefly exanthematous epidemic typhus, and identified the body louse as its vector. His diverse interests in general bacteriology, immunology, and the pathogenesis of infectious diseases included the discovery of toxoplasma, recognition of filterability of the trachoma virus and suggestion of viral nature of influenza.

The Nobel Prize in medicine and physiology was awarded to Nicolle in 1928 for his work on typhus. Later, during a mission in Mexico, he differentiated a murine typhus transmitted by lice to rats, from the epidemic typhus, common to man.

One of Nicolle's first discoveries in protozoology, was culturing of Leishmania tropica, from the oriental sore (the famous NNN medium still used today) and reproduction of the disease, by inoculation of the culture in dog and monkey. As a joint contribution with Manceaux, the Toxoplasma gondii, a protozoan parasite in rodents, was described and named. Several decades elapsed, before Aldo Castellini in Ceylon recognised and proved the first human case of toxoplasma. Today, we diagnose and treat a large number of toxoplasma lesions, as opportunistic consequence in HIV pandemic.

Charles Nicolle was a philosopher, poet and scholar, in addition to his outstanding investigations. In 1932, he was named professor in the college of France, following Claude Bernard, Laennec, d’Arsonval, and other great French scientists. He died on February 28, 1936.