CARLOS JUAN FINLAY (1833-1915)

Carlos Juan Finlay was born in Cuba, to a French mother and a Scottish father. A childhood attack of chorea left him with a residual stammer. He graduated from Jefferson Medical College, Philadelphia, in 1855. After studying further in Paris, he lived for some time in Lima, Peru and finally settled in Havana, in 1865.

Finlay’s first reference in the scientific literature to yellow fever (black vomit) appeared in 1872, when he reviewed the meteorological variation of air alkalinity known to influence development of yellow fever by increased transmission of disease. He prepared two important communications, and a decade later, advanced the hypothesis at the International Sanitary Conference, held in Washington D.C., in 1881, suggesting a vector. Finlay, of course, carried a strong conviction, in support of the theory of transmission by mosquito, presenting a communication entitled “mosquito hypothetically considered as the agent of transmission of yellow fever”, at the Royal Academy of Medical and Natural sciences of Cuba only 6 months later. Effect of meteorology and ecology of the two common mosquitoes in Cuba, was reviewed, in which Finlay implicated Culex, later known as Stegomyia faciatus, as a vector (now Aedes aegypti). He advanced the condition for propagation of yellow fever and speculated, on mosquito inoculation for immunity, proposing means, for eventual control of the disease. In 1886, he prepared the interim report regarding inoculation, but was unable to transmit the disease from a previously bitten patient, to another person, within a reasonably short time. A decade later, it was shown by Carter, that 12 days was the optimum time needed, before transmission of the illness to a non immune subject.

Finlay’s final part in the yellow fever investigation was to offer Walter Reed and his commission culex larvae for experimental transmission. The commission confirmed Finlay’s 1881 postulates, in 1902. In a speech read at the meeting, of American Public Health Association, in Indianapolis, Reed acknowledged Finlay’s help.

Finlay got greater recognition posthumously, for his contribution, than he had received during his productive years. He proposed sound procedures, for control of endemic disease, proved after his time, to be caused by a small virus. After his death, a statue was erected in his honour, in Finlay Square, in Havana, and the state of Pennsylvania, declared a Finlay Day.