

Dr. Hideyo Noguchi's Academic Achievements and Contribution to Africa

1. Dr. Hideyo Noguchi started his medical research in earnest after moving to the United States in 1901. As a leading researcher in the then fledgling Rockefeller Institute for Medical Research, Noguchi's research paper output was extraordinary. The number of research papers written by Noguchi reached almost 200, and various kinds of infectious diseases came under his scope of research. Projects varied from investigation of pathogens and development of experimental technique, to immunology and production of vaccine which raised the academic profile of the Rockefeller Institute for Medical Research phenomenally worldwide.

2. Dr. Noguchi's major research achievements are as follows:

- (1) Discovery of *Treponema pallidum*, the causative agent of syphilis, in the brains of progressive paralysis patients (1913)
- (2) Success in growing pure culture of syphilis spirochete (1911)
(However, no one has succeeded ever since in the replication of pure culture of syphilis spirochete.)
- (3) Proves that both Oroya fever and *verruca peruana* are both caused by a single pathogen *Bartonella bacilliformis* by verifying that *Bartonella bacilliformis* invades red blood cells in both cases (1926)
- (4) Succeeds in isolating *Leptospira icteroides* from patients of yellow fever (1919)
(*Leptospira*, which was then identified as the cause of yellow fever by Noguchi, was later disproved to be the spirochete of Weil's Disease. His name is remembered in the binomial *leptospira noguchi* in the classification of spirochetes.)

For the above academic achievements, Noguchi was three times nominated as a Nobel Prize candidate in the period 1914-1920.

3. Dr. Hideyo Noguchi was struck down by yellow fever while working in search of the pathogen of yellow fever in Accra, Ghana. His travel to Ghana was prompted by the death of his close laboratory colleague Dr. Adrian Stokes of the Rockefeller Institute in Nigeria, who also fell victim to yellow fever. His contribution to Africa could be described as his global vision to raise the visibility of Africa and his courage, underpinned by a firm belief in experimentalism, to challenge the Euro-centrism of academia at the time and the prejudice against Africa.

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