
Commentary

A Short Notes on Host Pathogen Interaction

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Introduction

The host–pathogen interaction describes how microbes or viruses survive inside of organisms at the molecular, cellular, organismal, or population levels. Even if they might not cause disease in all hosts, this term has been most commonly used in reference to illness microorganisms. As a result, the description has been expanded to include how recognized pathogens survive inside of one’s host, whether or not they cause illness. Microbes could indeed infect this same host and split rapidly, disease causing by being present and starting to cause a homeostatic abnormal condition, or by cells secrete toxins that cause signs to appear. Viruses can also infect the host with virulent DNA, which can interfere with the normal cellular functions (transcription, translation, and so on), protein, or immune response evasion, *Vibrio cholera* was among the first pathogens discovered by researchers, and it was discussed in detail by Filippo Pacini in 1854. His preliminary results were simply illustrations of the bacteria, but he published numerous papers on the bacteria up until 1880. He described how it causes diarrhea and devised treatment options for it. Many of these discoveries went largely unnoticed until 1884, when Robert Koch regained the life form and connected this to the illness. *Giardia lamblia* was found by Leeuwenhoek in the 1600s, but it wasn’t discovered to be infective till the 1970s, when an EPA-sponsored symposium was held in response to a wide outbreak of the parasite in Oregon. Ever since, several other organisms, including *H. pylori* and *E. coli*, have been recognized as pathogens, Bacteria, fungi, protozoa, helminthes, and viruses are all pathogenic organ-

isms. Each one of these distinct kinds of microorganisms can be classed as a pathogen based on how they spread. This includes eating, air - borne, waterborne, blood-borne, and vector-borne diseases. Pollutants are secreted into to the host by the many pathogenic bacteria, including food-borne *Staphylococcus aureus* and *Clostridium botulin*. HIV and Hepatitis B are blood-borne pathogen-caused common pathogens. *Aspergillums*, the most prevalent bacterial fungus, produce aflatoxin, a carcinogen that contaminates numerous foods, particularly those grown underground (nuts, potatoes, etc.), Pathogens could do a range of items within the host to cause illness and elicit an immune reaction. Because of their rapid reproduction and tissue invasion, microbes as well as caused by fungi symptomatology. As phagocytes break down the bacteria within the host, this triggers an immune reaction, likely to result in typical symptoms. Some bacteria, including such *Helicobacter pylori*, can secrete toxins into the surrounding tissues, causing cell death or inhibiting regular tissue, Viruses, on the other hand, cause infection through an entirely different mechanism. They will do one of two things when they enter this same host. Viruses frequently enter the lytic cycle, in which the virus inserts its Dna into the human host, reproduces, and ultimately causing the cell to lyse, releasing so much viruses into to the environment. The lysogenic cycle, on the other hand, is when the viral DNA is integrated into to the host chromosome, enabling the immune response to ignore it. It ultimately reactivates and needs to enter the lytic cycle, giving it an indefinite “shelf life.”