

## **Global Warming, Infectious Diseases and the Impact on Pathology and Histotechnology**

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### **Abstract**

**Global warming and climate change is allowing disease-causing bacteria, viruses and fungi to move into new areas where they may cause problems and even harm animals and humans. Pathogens that have been restricted by seasonal temperatures can invade new areas and find new victims.**

**Global warming and climate change is disrupting natural ecosystems in a way that is making life better for infectious diseases. Humans are also at higher risks from insect-borne diseases such as dengue, malaria and yellow fever. Malaria and yellow fever may become more common as milder winters permit to seasonal survival of more mosquitos. Malaria is strongly affected or influenced by climate. And only one (1) to two (2) degrees change in temperature can lead to disease outbreaks. Some pathogens reproduce more often in warmer temperatures which can allow more germs to be around to cause infections.**

**In patterns of infection the climate changes can strongly affect water-borne diseases and the disease that is transmitted by insects, snails and other cold-blooded animals.**

**The impact on Pathology and Histotechnology will be the return of some common special stains that may not have been used in a while. There are at least five (5) diseases that are caused by global warming: anthrax, Zika, tick-borne diseases, cholera, and Candida auris. Other diseases include Ebola, dengue, lyme disease, avian malaria and schistosomiasis.**

**And there may be modifications of some special stains as well as newer stains to visualize and demonstrate many of these diseases and microorganisms. Pathology and Histotechnology will have a greater role in the return of these infectious diseases. A review of some common infectious microorganisms will be initially demonstrated by special stains. This presentation will highlight, discuss and demonstrate these many infectious diseases and the stains that can be used to detect them.**