Interferon: Principles And Medical Applications

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Interferons are natural glycoproteins produced by virus-infected eukaryotic cells which protect host cells from virus infection. An outstanding feature of interferons is that they are host-cell-specific and not virus-specific. This means that interferons produced by mouse or chicken will not protect human cells against the same virus which induced interferon in the experimental animals. On the other hand, an interferon produced by a virus X in an animal will protect the animal also from other viruses. Interferon-gamma may also have therapeutic value in the treatment of leishmaniasis, a parasitic infection that is prevalent in parts of Africa, America, Europe, and Asia. Although all of the disease fighting attributes of interferon demonstrated in the laboratory have not been attained in practice, continued research into interferons will continue to expand their medical applications. For example, all three major classes of interferons are under investigation for treating a variety of cancers.