Over the past decade scientists around the world have proven that cellular ionic calcium is an absolute requirement for the initiation and propagation of all cell function. For reason of these findings they have described calcium as "the bio-element of the century". One of the foremost researchers in this area, who has contributed to and edited books on the subject, is Felix Bronner of the Department of Biostructure and Function, University of Connecticut Health Centre, Farmington CT.

In the 1950's, pursuing clinical research in practice, I defined chronic asthma as a "mal-adaptive disease" arising for reason of the body's adaptive response to chronic ionic calcium deficiency created by defects of lifestyle. These defects concerned deficiencies of diet, and of exposure of skin to daylight and sunshine, that can produce deficiency of one or both of the synergistic factors of calcium and of vitamin D required to ionize this calcium. I also defined an "ionic calcium deficiency syndrome" which arose for reason of the direct effect which this deficiency had on muscle and other tissue.

Over the ensuing years I related these deficiencies and this syndrome to the disease of many thousands of chronic asthmatics, arthritics, ileitis-colitis, hypertensive and other patients. This and the response these patients experienced to therapy with diet and supplements of these nutritional factors, finally led to the definition of a "unified concept of disease of ionic calcium deficiency involving ionic calcium deficiency". Considering the great importance which scientists have recently placed on cellular ionic calcium it is reasonable to expect that chronic deficiency of this ion would have such widespread clinical effects creating varied symptoms and disease.

The veritable backbone of this concept became a litmus paper test of saliva which, in the chronically deficient person, instead of being at a slightly alkaline to neutral normal level (pH 7.5 to 7.0), is weakly to strongly acidic (pH 6.5 to 4.5). Such acidic tests indicate a 10 to 1,000 fold increase in the hydrogen ion concentration of this secretion that likely parallels the concentration of this ion in the extra and intra cellular fluids.

In 1982 the disease resulting from HIV viral infection was defined as "AIDS". Beginning in the following year I appealed to many leaders in AIDS research and therapy that research be conducted on AIDS as representing coexistent deficiency of the adaptive system created by ionic calcium deficiency. In most of these letters which included extensive reference to my research and practice, I suggested that such research could be initiated by comparing this pH test on the saliva of AIDS patients, to that of HIV carriers and non deficient healthy individuals acting as controls.
In these approaches I invariably guaranteed that the average of the pH test in HIV carriers would be close to that of the controls indicating the presence, in them, of ionic calcium balance and intact combined adaptive and immune defense. In AIDS, however, I suggested that this test would be acidic indicating the presence of ionic calcium deficiency and of adaption to this deficiency.

When this latter function is exhausted by persisting calcium and vitamin D deficiency in non HIV infected individuals it has the potential of breaking down to create serious "mal-adaptive" smooth muscle spastic and exudative lung and intestinal disease. In the face of spreading HIV infection similar breakdown of this function likely is the most responsible factor for the serious respiratory and intestinal complications of the AIDS syndrome.

Since these concepts have been strongly validated by the relief of chronic asthma and ileitis-colitis, and the partial restoration of a normal salivary pH, in thousands of patients during 30 years of practice by therapy with diet and preparations containing calcium and large doses of the A and D vitamins, this study and therapy should be applied to AIDS patients. I have little doubt but that the results obtained will indicate that, as in other disease states, the lung and intestinal features of the AIDS syndrome largely arise because of a "deficiency-mal-adaptive reaction".

Ionic calcium deficiency depreciating immune and adaptive potential may provide reason for the initial spread of HIV infection. The major effect of the infection, however, is the result of its spread through internal glandular secreting tissue that will ultimately lead to complete deficiency of all immune and adaptive defense hormones. Therefore, once the virus "gains a foothold" in this tissue it will begin its gradual advance to completely arrest all internal production and secretion of defense hormones.

The HIV virus may have a strong predilection for pyrolle ring structures that are utilized by internal glandular tissue in the synthesis and secretion of steroidal defense hormones into the circulation. This ring structure may thus constitute a model for the synthesis of an anti-viral agent that may be preferentially utilized by the viral particles in their metabolism to spare the use, by them, of the pyrolle hormone precursors. The glandular tissue could then continue in its synthesis of these hormones to provide immune and adaptive defense. Moreover the virus may self destruct on this substitute diet.

I am hopeful that eventually I will be assisted in my search for collaboration in research on advancing HIV infection, not as AIDS but as AAIDS based on chronic ionic calcium deficiency.