

# VITAMIN NEWS

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## THE CONTROL OF GROWTH, HEALTH AND VITALITY BY PROTOMORPHOGENS

A protomorphogen is a cell secretion given off by all living cells at all times in minute amounts that promotes the synthesis of protein for cell repair and cell maintenance on the outside of the cell wall, after which it is absorbed by the cell. Protomorphogens are chromosome end products, made in the cell nucleus, probably the agents by which the basic functions of the chromosome are exercised. All living proteins carry a protomorphogen component by which the protein is made specific in nature, specific in causing organic reactions, specific in function, specific in its ability to act as an antigen in provoking immune reactions. All antigens may be antigenic by reason of accompanying protomorphogens -- in some cases instead of being attached to a protein molecule the protomorphogen may be attached to a lipoid or polysaccharide aggregate. When a protein has been separated from a protomorphogen it is said to be denatured, and is no longer fully capable of antigenic action; that is, cannot create an antibody specific to it in the circumstance of its injection into an animal blood stream.

Since no cell can grow or maintain itself, unless protomorphogens, as secreted by itself, are available in the percellular fluids, it is obvious that here we have the possible biological growth regulator. Suppose that the immune-body producing mechanism of an animal, heretofore looked upon only as a defense against invading organisms (cells) from the outside, were to be found to exert the same controlling action on every organ and cell of the body, we would have the answer to the long-sought question of why animal organs and living creatures in general were able to regulate their growth exactly according to a well-ordered plan.

We find, on investigation, that there is just such a reaction of the immune body producing mechanism (the reticulo-endothelial system) and it has been described under the general designation of Natural Tissue Antibody (NTA).

There is a specific NTA for every different

kind of organ in the human body. Suppose a patient with a history of tuberculosis or chronic bronchitis shows evidence that his lung tissue has a very low vitality, refuses to heal after damage or irritation. It certainly will not be far-fetched in reasoning to assume that there is present in the blood stream an excessive amount of the lung-specific NTA that is acting to inhibit unduly the vital repair activities of the lung cells. The more protomorphogen released into the blood stream by lung lesions, the more NTA will be created, it is reasonable to assume. The reactions of a tubercular patient are exactly such as one might assume from this hypothesis. They seem to have lost much of their healing vitality; their incentive for tissue repair is no longer up to normal. The same is true of heart patients who have had extensive heart damage. The same may be true for many other organs and tissues. Pernicious anemia seems to be just this. Also the dystrophies of muscle and atrophy of nerve tissue in the wasting and paralytic diseases. The patient simply has become allergic to some of his own tissues. Philosophically speaking, such a mechanism of this kind has, of necessity, to exist. The body must have as much ability to tear down and discard as to build and repair. Normally, both operations properly balance to create health.

Now for the clinical side of this new philosophy. Protomorphogens have been made by extraction of chromosome material from heart, lung, liver and other organs. The lung protomorphogens in tests on various patients with tuberculosis, bronchitis, smoke-burned lungs (of firemen) has almost invariably proven useful in speeding recovery. More, it often seemed to turn the tide where the patient was making no favorable progress.

The heart protomorphogen was really spectacular. With the cardiograph to record the performance, immediate improvements in heart action can be observed. A few minutes are enough for the change in the heart's reaction to the new blood stream with its lowered content of NTA to be

apparent. It seems that as soon as the heart protomorphogen is absorbed into the blood stream by alimentary route, it combines with NTA in the blood, and such blood is more friendly to the heart cells.

The effect is much like that of digitalis. The heart becomes stronger and the pulse rate slows; the rest period becomes longer in proportion to the contraction and systolic time. The dosage must be small at the start, as the combination of heart protomorphogen with the NTA is a poison, normally produced in relatively small amounts, but usually put into the category of "fatigue toxin". Too much may make the patient feel slightly toxic, like the onset of a cold -- which may be accompanied by the same type of reaction between an antigen and an antibody -- here the antibody that protects us against the "cold virus". After this first dose, the protomorphogen (any of which seem to be capable of this primary upset in patients with a long history of disease) is perfectly well tolerated.

Protomorphogens never can be administered by injection, as in that case they will aggravate the target organ instead of helping it. This is because injected protomorphogens are immediately picked up by phagocytes and carried off to lymphoid tissue where they instigate the production of MORE, instead of less, NTA. Alimentary administration, on the other hand, simply promotes the reduction of the NTA blood levels, no doubt by direct combination with the NTA as fast as the protomorphogen is absorbed into the blood stream. The different effect may entirely be due to the concentration on arrival in the blood, the alimentary absorption being so diluted that phagocytic pickup cannot be accomplished.

I may divert here to say that it appears that cortisone does its work by flocculating blood antigens so that they can be picked up by phagocytes. Cortisone, therefore, promotes an immediate reduction in blood antigens, most of which are toxic, and creates a temporary feeling of well-being. But by reason of the phagocytic route of

disposal it creates, the later effect is an excess of antibody production of all kinds, and if it happens to be muscle antibody that is overproduced (as would happen if the cortisone injection took place after a day of hard muscular effort which had loaded the blood with muscle protomorphogens) the effect 14 days later would be an obvious attack of asthenia, that might mean the beginning of a serious muscular dystrophy for which no cure might be found (other than muscle protomorphogen).

Heart protomorphogen, being heart muscle extract, may act favorably on all muscular tissue.

The protomorphogen of bone tissue has been found of great value to the dentist, bone regeneration around loose teeth has been readily accomplished where the decalcification has not been accompanied by too much necrosis. Its biggest field in dentistry may be in its highly beneficial effect in improving the toughness of the mucous membranes under dentures and eliminating the common complaint of sore spots under the false teeth, which are no more successful than the natural teeth without a healthy bone support. The effects of the bone protomorphogen are very prompt, the denture patient reports improvement within a few days. X-Ray pictures may show recalcification of bone within two weeks.

This short review of this new field in promoting specific nutritive activity of any specialized body tissue is intended as an introduction only to the subject. We suggest your further study of the book, "Protomorphology", if you desire to know more about the theories involved.\*

Meanwhile, protomorphogen extracts are now available, as follows:

Bone - BIOST tablets

Heart - CARDIOTROPHIN tablets

Lung - PNEUMOTROPHIN tablets

Liver - BETALCO and BETACOL tablets  
(combined with lipotropic factors)  
OTHERS SOON TO BE AVAILABLE.

\* "Protomorphology" is published by Lee Foundation for Nutritional Research - Milwaukee 3, Wisc.

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