• standard process glandular products •

The Three Types of Standard Process™ Glandular Products

THE THREE TYPES OF GLANDULAR PRODUCTS ARE:

- PROTOMORPHOGENS
- CYTOSOL EXTRACTS
- WHOLE GLANDS (CONCENTRATES OR DESICCATES)

These three, clinical tools are as different as a hammer, a screwdriver and a saw. Success in using glandulars depends on using the correct one for the job at hand. Only Standard Process makes all three.

The hallmark of Standard Process® is its **glandular products**. Patented glandular **cytosol extracts** offer function and relief right away while **protomorphogens** (PMG) are extracts from the nucleus of the cell and promote healing over time. Only Standard has the technology that can create cytosol extracts and protomorphogens. This patented technology was invented and implemented in late 1940s by Dr. Royal Lee.

Cytosol Extracts

CYTOSOL EXTRACTS "PROVIDE FUNCTION -- AND RELIEF -- RIGHT AWAY"

Cytosols are extracts from the cytoplasm of the cell. In the cytoplasm is found the unique and critical components of the cell. Cytosol extracts are undoubtedly the next most important type of glandular and the principal source of the reputation that glandulars have for really dramatic clinical results, especially in acute cases.

Cytosol extracts are used widely in the Standard Process line, and are critical to the success of many of the best known Standard Process products.

For Example: Zypan contains Pancreas Cytosol Extract, and Ligaplex I and II contain Adrenal Cytosol Extract. Cytosol extracts are only produced Standard Process and for the same reason as protomorphogens™.

Protomorphogens™

PROTOMORPHOGENS™ "PROMOTE HEALING OVER TIME"

Protomorphogens™ (PGMs) are extracts of the nucleic acids from the nucleus of the cell. The nucleic acids, of course, control the function of the cell. Many doctors use the terms protomorphogens™ and glandular interchangeably. While not strictly accurate, the protomorphogen™ is the fundamental type of glandular product, and the principal source of the reputation earned over many decades for clinical results, especially in chronic cases.

The PMGs are used when a gland is under-active or when it is over-active. Suppose your thyroid is under-active, you need Thytrophin PMG. You would also need Thytrophin if your thyroid was overactive due to the presence of a tumor. (Sometimes a gland appears to be overactive when it's just that the antagonistic gland is under-active. This is the tricky thing about endocrinology.)

Three products are actually combinations of PMGs -- Paraplex, Symplex M and Symplex F. The "M" stands for "male," and the "F" for "female." The Paraplex is mainly for diabetics and hypoglycemic. You can see that Paraplex, Symplex F and Symplex M each contain pituitary, thyroid and adrenal extracts. This is where the similarity ends. While Paraplex contains pancreas extract, Symplex F contains ovarian extract and Symplex M, orchic extract.

As people get older, their endocrine glands slow down. So a woman in menopause might do better on Symplex F than she does on straight ovarian extract. Perhaps her thyroid and her adrenals are under-active and need support along with her ovaries. That's why we have these products containing extracts of more than just one gland.

A detailed discussion of the Protomorphogens can be found here.

Whole Glands

WHOLE GLANDS "PROVIDE THE NUTS AND BOLTS THAT MAKE UP THE GLAND"

whole glands are the easiest to manufacture and are available from everyone. It is interesting to note that the type of glandular with the narrowest range of uses is the one most widely offered to the doctor. At the same time, in the special case when it is the proper tool only is it really going to produce the result.

• the protomorphogens or PMG™'s an explantation •

PROTOMORPHOGENS™ "PROMOTE HEALING OVER TIME"

The hallmark The hallmark of Standard Process is its glandular supplements, specifically the **PROTOMORPHOGENS (PMG)**. Many health practitioners note that there is ABSOLUTELY NO SUBSTITUTE for the protomorphogens manufactured by Standard Process. The publication PROTOMORPHOLOGY - THE PRINCIPLES OF CELL AUTO-REGULATION was presented by Royal Lee and William Hanson in 1947. The TWO PRIMARY factors in protomorphology theory are that through alimentary ingestion (1) increased amounts of protomorphogen is supplied thereby assisting in a speedier recovery of tissue, and, (2) increased protomorphogen material acts to speed elimination of increased Natural Tissue Antibodies (NTA) in the blood. Although the complete text on protomorphology theory is complex, the empirical evidence of protomorphogen efficacy remains unquestionable. THEY WORK! The following is a portion of a concise and condensed explanation of how PROTOMORPHOGENS work described Royal Lee in 1956.

A protomorphogen (PMG) is that component of the cell chromosome that is responsible for morphogenic determination of cell characteristics. it is the smallest unit of the cell blueprint assembly. It is the smallest unit of the gene system that guides the cell into its hereditary form as it grows, develops or repairs itself. Without sufficient protomorphogen in its chromatin, the cell degenerates, de-differentiates, becomes senile and dies. The protomorphogen level in the cell is regulated the fact that, while normally more is constantly being created the cell nucleus, it is antigenic and promotes the formation of antibodies (in the mammalian organism), which in turn control the levels of extracellular protomorphogen in blood and lymph.

Throughout the years, we have periodically pioneered remarkable "firsts". These "firsts" have not all been immediately accepted the consensus of opinion. No method of measuring the effectiveness of protomorphogens laboratory means has been discovered, just as was the case for many years with vitamins. The clinical response, however, can be demonstrated in a matter of minutes an instrument such as the Endocardiograph.

Cytotrophic Extracts are manufactured under U. S. Patent #2,374,219 which states the "purpose of this patent is to provide an improved method of producing a sterilized dry substance from a juice." This sterilization takes place below pasteurization temperature of a juice, thus the synergistic agents, such as amino acids and enzymes are not destroyed. Cytotrophic Extracts are not drugs. They are composed of the mineral fractions of animal tissue which is found associated in the protein molecule. Nutritionally this would be considered in the category of meat extracts. Since hormones are not contained in these products, there are no contraindications as to their use, therefore they are sold as experimental FOOD PREPARATIONS. Naturally, no food products are subject to, or restricted the Experimental Drug Law.

...and in another paper:

It may be assumed that the specific growth factors (the cellular blueprints known as protomorphogen (PMG) that are constantly being secreted each cell into its surrounding fluids) are prevented from traveling very far the influence of specific antibodies, known as Natural Tissue Antibodies (NTA). They must be destroyed, if allowed to build up in any concentration, they would promote cell growth and mitosis. Only if any specific organ becomes subject to overwork and consequent inflammation in some degree does this occur. (A kidney doubles in size in six months after its partner has been removed.) (Muscles grow if sufficient demand is made on their ability.)

Where disease has damaged an organ, such as tuberculosis in the cases of lung, or where the heart has hypertrophied overwork, the ingestion of heart or lung PMG, as the case may be, may at first create adverse reactions of a toxic nature (malaise, tiredness), apparently reason of the immediate proteolytic destruction of the ingested PMG antibodies in the blood stream, that are present in higher amounts than normally, reason of the long-standing inflammation of the specific organ.

But cardiographic recordings will show that within a few minutes after ingestion of the cardiac PMG the heart action changes for the better. It is hard to explain this reaction other than assuming that the excess heart tissue antibody in the circulating blood has been reduced combination with the ingested heart PMG. This is probably done without danger of stimulating the formation of more heart tissue antibody, since alimentary ingestion normally does not permit proteins to act as antigens. Parenteral introduction of such materials is another matter.

Other factors that assist in controlling NTA are allantoin, betaine, (probably be a depolymerizing effect), and the hormones of the gonads, thyroid, thymus, and adrenal. Thymus acts promoting colloidal dispersion that physiologically opposes cortisone, which flocculates antigen into particulate dimensions that permit their ingestion phagocytes (and then antibody formation). The thymus during the development age, prevents this and keeps PMG available for growth stimulation and ultimate enzyme digestion and renal elimination.

Thyroid hormone splits PMG off the chromatin reserves of the cell, or from absorbed stores in connective tissue. That is why thyroxin accelerated tadpole metamorphosis. It is also the reason why thyroxin increases the metabolic rate. The released PMG stimulates cell activities.

EXCERPTS FROM APPLIED PROTOMORPHOLOGY BY ROYAL LEE, DDS