What are antineoplastons?

ntineoplastons are peptides and amino acid derivatives, discovered by Dr. Burzynski in 1967.

Dr. Burzynski first identified naturally occurring peptides in the human body that control cancer growth. He observed that cancer patients typically had deficiencies of certain peptides in their blood as compared to healthy individuals. According to Dr. Burzynski, antineoplastons are components of a biochemical defense system that controls cancer without destroying normal cells.

Chemically, the antineoplastons include peptides, amino acid derivatives, and organic acids. They occur naturally in blood and urine and they are reproduced synthetically for medicinal use. The name of antineoplastons comes from their functions in controlling cancerous cells, which

are technically called "neoplastic" cells.

Antineoplastons act as molecular switches, which turn off life processes in abnormal cells and force them to die through apoptosis (programmed death of a cell). While they trigger the death of cancer cells, they do not inhibit normal cell growth. They specifically target cancer cells without harming healthy cells.

When someone has cancer they have a higher level of oncogenes switched on and higher level of tumor suppressor genes switched off. The goal is to tell the body to both turn back on the tumor suppressor genes and turn off as many oncogenes as possible. While there are currently 25 different gene-targeted therapies on the market, most only target one gene. Antineoplastons work on more than one hundred genes.

Dr. Burzynski explains, "Statistically, everyday one out of every ten thousand cells may develop in a wrong way, and some of these cells may become cancer cells. But why we don't develop cancer—all of us—is because we have protective systems, we have antineoplastons. They immediately force these malignant cells to die by working on the genes, by turning on genes which fight cancer, and turning off the genes that promote cancer. As long as we have the proper amount of antineoplastons in our system we should not develop cancer. If we are deficient then we can develop cancer. So, I put together what I call the second immune system of our body."

See Pages 7 and following for more information.

Two catgories of genes that allow cancer to grow:

Tumor Oncogenes suppressor genes