Glycoscience Leukemia Breakthrough

Smart Sugars Lesson #85

by JC Spencer

Scientists have found that leukemia cells have altered cell surface carbohydrates. This is a remarkable discovery and may change how cancer is treated.

When glycoprotein receptor sites on the surface of human cells become deformed, they can kill you. It is from these little antenna all communication is made to support life. You have some 56 quintillion receptor sites (give or take a few trillion). Every single antenna is constructed from Smart Sugars.

When your body does not have enough Smart Sugars, it can manufacture them from glucose and other sugars present. However, the enzymatic gymnastics require so much time and energy that the job is not finished properly. When the job is not finished, the receptors are deformed and malfunction with corrupted signals.

Researchers at Griffith University's Institute for Glycomics in Australia and The Saban Research Institute of Children's Hospital Los Angeles have discovered that leukaemic cells have altered cell surface carbohydrates compared to normal cells. Altered cell surface carbohydrates is a critical weakness in leukaemic cells. This knowledge may pave the way for new cancer treatments.

Professor Mark von Itzstein is Director of Griffith University's Institute for Glycomics and the Australian team leader. He said the discovery is an important advance against leukemia, a cancer of malignant white blood cells that multiply uncontrollably.

Professors Nora Heisterkamp and John Groffen, leaders of the US-based team and Professor von Itzstein and their colleagues have published their research findings in the latest edition of the internationally acclaimed *Journal of Experimental Medicine*.

We know removal of healthy glycoproteins from the surface of healthy cells will kill healthy cell. So, the immediate response of the researchers is to remove the altered glycoproteins from the cancerous cells thereby killing the cell. Sounds good, but...

Could it be that the scientists are looking through the wrong end of the microscope? It seems more plausible to improve the immune system by making more healthy glycoprotein receptor sites instead of killing the unhealthy cells. That is the job of the immune system. You may be able to do that with additional Smart Sugars in the body which will cut down on the time and energy required for enzymatic gymnastics to produce healthy receptor sites.

Source:
http://jem.rupress.org/

www.GlycoscienceNEWS.com

Transforming Glycoscience - A Roadmap for the Future, by National Research Council of the National Academies. Introduction pg 15 - Important Facts About Glycans, Health 1. "*Elimination of any single major class of glycans from an organism results in death.*"

Expand Your Mind - Improve Your Brain
http://www.endowmentmed.org/content/view/826/106/

Change Your Sugar, Change Your Life
http://DiabeticHope.com

Smart Sugars Lesson #85
http://www.endowmentmed.org/pdf/SmartLesson85

http://EzineArticles.com/?expert=JC_Spencer