

Mannatech - The Natural Leader

Most experts agree that the future of glycomics will be huge.

Mannatech was one of the first companies in the world to recognize the importance of natural, food-based sugars in the diet—and to provide these sugars in the form of easy-to-take, cost-effective supplements. We were also the first company to apply for international patents on the results of our nutritional glycomics research.

In addition to our role as pioneer and innovator, Mannatech remains in the vanguard of the dynamic, exploding glycomics industry. Most of the glycomics research currently underway elsewhere is focused on synthetic, non-food sugar structures. This fact explains why so much current glycomic research is being sponsored by the major drug manufacturers. Many scientists believe that glycomic drugs will be the drugs of the future, and much pharmaceutical company research is pointed to achieving that end.

Fortunately, we aren't waiting for the results of this research before giving our bodies the support the eight essential sugars can provide. Mannatech products containing Ambrotose® complex offer these sugars (very different from table sugar) in their natural form. The saccharides in Ambrotose® complex are harnessed from rich plant sources and delivered in easy-to-take glyconutritional supplements.

At Mannatech, we've been offering glyconutrient-based products with Ambrotose® complex since 1996. The essential saccharides in Ambrotose® complex allow greatly enhanced cell-to-cell communication and significant immune system support to help you stay at your highest possible level of wellness, which includes the proper functioning of your glands and organs.*

In some ways, it seems as though much of the scientific world is just now catching on to a major health-support concept that Mannatech has known about and been bringing to the consumer market

since the company was founded. Many of the same "experts" who originally questioned the legitimacy and value of glyconutritionals are now investing millions into what they perceive as one of the most significant health industry opportunities in decades.

Exploring Life's Sweet Side

Always at the forefront of our industry, Mannatech takes (and has always taken) a nutritional approach to glycomics. Our products harness naturally occurring sugars from plants that can support normal body structures and functions in order to sustain health.*

The new interest and research in glycomics by drug companies will most likely benefit Mannatech. Why? Because as glycomics research gains momentum and attracts greater public attention, overall awareness among health professionals will increase. They will learn that glyconutrition is real, legitimate, effective and here now. In addition, health professionals will likely become more interested in the impact of nutrition on health—particularly glyconutritional supplements.

Healthcare professionals may become much more adept at diagnosing disease and able to see illness at the most basic, molecular level, before any symptoms or abnormal test results are shown. Drug development will let doctors intervene and slow or correct the disease process. A whole new class of glyco-drugs—all disease-specific—will reach the market.

At Mannatech and other visionary companies in the dietary supplements industry, we'll be able to develop nutritional products that meet individual needs, custom-tailored to an individual's specific requirements at any given time. Since human nutritional needs sometimes vary (for example, during times of stress), we can focus on discovering what our diet lacks so that we can furnish it immediately to sustain wellness and prolong the healthy period of life.

* This product is not intended to diagnose, treat, cure or prevent any disease.



Mannatech - The Natural Leader (cont.)

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The biggest impact of glycomics research may be in helping us to understand how to be and stay healthy, how to measure health, and how to optimally support the body at the cellular level.

The future of glyconutritionals is very promising indeed. The wellness industry has been forecast by noted economist and futurist Paul Zane Pilzer to reach \$1 trillion by the end of this first decade of the 21st century.

Mannatech will continue to lead the industry, developing and bringing better health solutions to people around the world.

Can Glycomics Change the World?

Glycomics Highlighted in MIT Publication

The prestigious Massachusetts Institute of Technology (MIT) describes the burgeoning science of glycomics research on sugars and their impact on human health as “one of the ten technologies that will change the world.”

While mainstream scientists have recognised and are investigating the potential of synthetic glyco-drugs, their efforts may require years to produce results. But the increased interest in the role of sugars in human health can expand the market for glyconutritional supplements today!

In the February 2003 edition of Technology Review, the Massachusetts Institute of Technology profiled the science of glycomics as a new technology that “...could have an impact on health problems ranging from rheumatoid arthritis to the spread of cancer cells.” Glycomics is the study of sugars and includes glycobiology—the study of the effects of sugars on living organisms.

The article detailed at least six scientific experts who are hard at work, trying to synthesize the thousands of sugars made by the human body. These researchers are funded mostly by pharmaceutical companies that hope to turn these sugars into drugs that will boost the immune system and heal disease.

“The reason for the excitement around glycomics is that sugars have a vital function in the body,” the article explained. “By manipulating...sugars themselves, researchers hope to shut down disease processes, create new drugs and improve existing ones.”

Not an Easy Task

The article also explains that because there's no simple “code” that determines sugar structures, the researchers admit they have an enormous task ahead. They estimate that as many as 40,000 genes make up each person, and each gene can code for several proteins. In fact, sugars modify many of these proteins. Then various cell types attach the same sugars in different ways, forming a variety of branching structures, each with a unique function.

Researchers say that it's a nightmare to figure out. In fact, a group of more than 40 academics from a number of disciplines called the Consortium of Functional Glycomics is working with a \$34 million grant from the National Institutes of Health to accomplish the task. But even with this hefty federal funding, the scientists admit they won't be able to detail every sugar in the body. That, they say, will likely take many years of difficult research.

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