The Yttrium **Paradox Explained**

Staff Report

When the editorial mailbox spills out well over 100 letters asking for "more," we have to take notice. The more has to do with yttrium, that strange entry on the genetic chart that never turns up in body tissue.

For come-lately readers, we simply state that yttrium is a mineral on the Standard Genetic Periodic Chart and is used in the construction of a protein. Almost all Acres U.S.A. readers know that a protein is made up of simple building blocks called amino acids. It is simplistic vet profound to note that an amino acid has a defined beginning, middle and end.

The work of Richard Olree, which informs Charles Walters' Minerals for the Genetic Code, dropped a shoe that has brought nutritionists, chiropractors, acupuncturists and even practitioners of allopathic medicine to standing attention. It seems to have resounded even more among readers who take seriously the fragile nutritional terrain on which we all live. The three divisions of amino construction and that yttrium fellowtraveler seem now to baffle layman and professional alike.

Last month, we called on Olree for an explanation stripped of medical jargon and loaded with straight talk.

"Those three parts of the amino acid," he responded, "can be explained by the metaphor of a train - you have a powerful engine, cargo cars and a caboose, or control center. The engine provides power, and this is analogous to the amino acid called methionine. The cargo represents the DNA information required to create the protein. The caboose represents the elemental termination point of the building job."

These termination points are known as stop codons. There are only three stop codon triggers: hydrogen, sulfur and

Olree mentioned the computer world. You can create a compact disc, but you also have to finalize it if you intend to pass it on, e-mail the contents, and so on. You can't start up an amino acid and leave it open-ended, and this reality gives hydrogen, sulfur and yttrium front-burner status.

THE PLOT THICKENS

We will not detain the reader here with details on the termination elements hydrogen and sulfur — Minerals for the Genetic Code paves that roadbed with maximum coverage. Clearly, hydrogen governs most termination chores. Sulfur is the fourth-most-abundant element in the body — yet it can be washed away.

Now we come to the paradox and the reason for all those inquiries. As recently as the year 2000, medical manuals often dismissed yttrium as a health factor because it failed to show up in tissue tests. The voluminous literature wasn't much help in unraveling the paradox, Olree points out. It was simply absent on lists of required components for health and life — yet here was a mineral so vital it governed the third termination point of protein production. How could it fail to leave its imprint on tissue somewhere? How could this riddle, this enigma have eluded scientists for 100 years?

Olree monitors PubMed, a service that abstracts and publishes the world's medical literature each day, the difference between release and publication being minimal. Other people start their day with coffee or bacon and eggs, but Olree boots up the computer and avails himself of laboratory results that may have been months, even years in the making.

One day a piece of research floated into his Hillman, Michigan office. It revealed that any animal injected with yttrium chloride delivered the product to the intestinal tract. Yttrium had no role in cells whatsoever.

This prompted Olree to take a look at probiotics in relation to yttrium. It turned out that all the commonly sold probiotics on the market made an awesome list. He analyzed the data and the literature, and found that one genus of bacteria relied heavily on yttrium as opposed to sulfur and hydrogen. That bacteria genus was Bifidobacterium, comprising Bifidobacterium longum and Bifidobacterium bifidum.

All bifidobacteria are important, but the yttrium-supported species are the most important of all. These microbial workers depend on yttrium, and we humans in turn absorb the product of their work. In short, we have yttrium-based proteins created by the bifidobacterial workers to the areas of activation within the human body. More technically, "The bifidobacteria make proteins that have an electron cloud made under the influence of yttrium."

A PRACTICAL MATTER

The real deficit in the diet of our modern population is yttrium. It takes a plant to find yttrium and make it organic for human use. Unfortunately, yttrium absorption from the food supply is interdicted by aluminum, alum, if you will, which we fetch out of our city drinking water, out of bathroom products such as deodorant, and out of medicines, especially coated aspirin (the people who can least tolerate aluminum are the aged, often the very people who eat coated aspirin like candy).

ABSENT YTTRIUM

In the absence of yttrium, there is a backup — namely, selenium. Selenium can act as a substitute in the termination point of protein production. In the absence of yttrium *and* selenium, with aluminum as a sinister hanger-on, a major acceleration of aging takes place.

Just the same, any substitution for yttrium demands a Brobdingnagian price. The DNA molecule wants to use the shortest pathway for any nutrient, this in terms of energy expenditure. If the body cannot make a protein one way, it has a backup way. A new pathway may be likened to flying to Nome, Alaska, in order to get to Atlanta, Georgia.

Colostrum from the first milking or the newborn's first milk from its mother relies on bifidobacteria. It facilitates the absorption of selenium and the placement of selenium into a young child's brain. The codicil to this story is that the older we get, the less bacteria we have in our system, and incomplete protein synthesis occurs more frequently, with resultant senior ailments.

A PROFOUND STATEMENT

Selenium has been proved by modern genetics to invoke tumor-suppressing proteins into action. The most notable of these proteins is P53, also known as the guardian of the genetic code.

"Without selenium to invoke the tumor-suppressing genes, the situation allows cancer cells to thrive to a marked degree," Olree notes, adding, "Yttrium is just as important, because if the body needs to make protein and can hook onto a termination point of this production, then the protein deficit looks to that inevitable phone call to a suitably named facility for internment and impending occupation.

NUTRITION

We all seek to sidestep the consequences of a debased food supply. To retain yttrium as we grow older, try oatmeal! Oats suck up yttrium the way a miser stockpiles coins. Watermelon also qualifies. Cranberries invite, even command attention. Cow's milk can fit the profile, depending on the feeding system used to produce it. Not much grocery store milk qualifies. A dairy cow on pasture with selenium would likely gift the consumer a fair measure of yttrium. Milk from confinement-fed animals need not apply.

Dill pickles are a good source of organic selenium. Unfortunately, food fools often undo the merits of dill pickles by inviting aluminum sulfate to the dinner, turning this healthy food into a time-delayed Borgia's feast. Alum cancels out yttrium the way frustration cancels a bad debt. To the best of our knowledge, Amish, Mennonite and Hutterite cultures make dill pickles correctly. Lanthanum,

number 63 on Olree's Standard Genetic Periodic Chart, is a kissing cousin of yttrium. Cucumbers won't grow well unless there is lanthanum in the soil.

Charles Walters' *Minerals for the Genetic Code* is available from the Acres U.S.A. bookstore. To order, visit *www.acresusa.com* or call 1-800-355-5313.



Acres U.S.A. is the national journal of sustainable agriculture, standing virtually alone with a real track record — over 35 years of continuous publication. Eash issue is packed full of information ecoconsultants regularly charge top dollar for. You'll be kept up-to-date on all of the news that affects agriculture — regulations, discoveries, research updates, organic certification issues, and more.

To subscribe, call

1-800-355-5313

(toll-free in the U.S. & Canada) 512-892-4400 / fax 512-892-4448 P.O. Box 91299 / Austin, TX 78709 info@acresusa.com

Or subscribe online at: www.acresusa.com