

## Felix Bronner November 7, 1921 - February 7, 2015

Link to Dr. Bronner's Obituary

Felix Bronner, retired professor of physiology in biophysics and current editor of *Topics of Bone Biology*, is interviewed in this segment of "Living History of Physiology" by Carolyn Pennington of the Office of Communications at the University of Connecticut Health Center. Dr. Bronner has had a career of more than 50 years working on the physiology of calcium and bone metabolism, as well as nutrition. He officially retired in 1989, but he is still active in research, writing and editing, and organizing talks and seminar at the University of Connecticut.

Dr. Bronner received his undergraduate degree from the University of California, enlisted in the U.S. army during World War II, and attended Massachusetts Institute of Technology after his active duty was up, working on his Ph.D. in nutritional biochemistry that he received in 1952. His Ph.D. thesis focused on young, institutionalized boys who were given either a low-calcium or normal-calcium meal to see what happened to their calcium metabolism. Dr. Bronner's work since his postdoctoral research looks at how calcium is regulated and what happens to it in the body. He originally did much of his work on humans, but in order to look at more specific organs, he switched his experiments to animals, as he could only examine blood and urine from humans. When he worked at Rockefeller University, he studied patients with osteoporosis.

In 1963, he was asked to be an associate professor of physiology in biophysics at the University of Louisville School of Medicine, where he was given two Ph.D. students to work with, switching his emphasis from organs and overall metabolism, to specific processes such as mechanisms by human bones that regulate calcium in the body. This was the beginning of a detailed study of calcium absorption. When Dr. Bronner moved to the University of Connecticut, he continued with his research on mechanisms of calcium absorption and published many articles in the *American Journal of Physiology*.

Dr. Bronner's published a paper in 2008 about the kinetics of lanthanum in human bone. He explained that people with chronic kidney disease tend to develop high levels of phosphorous in their blood. It is a difficult to minimize the intake of phosphate, and the most effective way to do so before his study was to capture excess phosphate with calcium carbonate, which eventually led to the problem of excess calcium. Dr. Bronner said the notion of using lanthanum carbonate was a way to catch or bind the phosphate, and after an analysis, researchers found it had no major effect on human bone, since little lanthanum is absorbed.

Dr. Bronner highlights his two major accomplishments: an analysis of calcium homeostasis and an analysis of how does calcium gets absorbed. He has had 121 journal publications, written and edited 79 book chapters, and has acted as editor for 58 different books. He said that together, with an older colleague, he had an idea and ultimately developed the first book dealing with mineral metabolism; it ended up being five volumes long.

Dr. Bronner was born in Vienna and moved to Berlin at eight years old. When Adolf Hitler took over, his family was forced to flee because they are Jewish. He ended up moving overseas to be with relatives in Washington D.C., where he completed his high school education. His parents moved to the U.S. four years later after his father was detained and released from a detention camp. He says his family initially wanted him to go into chemistry. As a second career, Dr. Bronner is also an abstract artist.