

# Editorial

Closing the Centenary of Linus Pauling, February 28, 1901 to August 19, 1994

Professor Pauling was born just over 100 years ago, one of the greatest of gifts that any parents could give to the world. Over the past week I have been re-reading the book *Linus Pauling In His Own Words* by Barbara Marinacci with an Introduction by Linus Pauling. I returned to this book because I need to be re-inspired every now and then and reading about Pauling, his massive contributions to the world of science, and to the world of nutrition and then for peace does this for me.

Fortunately Pauling earned his Nobel prizes in the right order, for chemistry which was his first and enduring love, so changing it that we live in a new chemical world where most people do not even realize that these changes have occurred. His discovery of the structure of the hemoglobin in sickle cell anemia eventually led to his work with orthomolecular medicine. His immense reknown in chemistry made it possible for him to use this prestige and almost lose it in his fight for world peace, against radiation and atomic bomb testing. He told me that he did not enjoy his chemistry prize as much as his peace price for he said; "I enjoyed chemistry so much that I did not feel the need to be rewarded for doing chemistry but when it came to peace I worked so hard and found it so difficult that in this case I felt that I really deserved that award." During the height of his activity in peace he gave over 500 lectures on

the theme of the dangers of atomic bomb testing and the evil effects of radiation on humanity. He was hated by both the United States government, who took away his passport which probably prevented him from getting his third Nobel, and by Stalin. The chemistry prize endeared him to the scientific world. The Peace prize endeared him to the public but diminished his prestige among his fellow scientists and when he reached the standard retirement age of 65 he had more or less decided to retire. He had not been welcomed gratefully by his favorite university where he had done most of his research.



Having decided to retire he became familiar with the work Dr. Humphrey Osmond and I had been doing with optimum doses (called megadoses) of vitamin B<sub>3</sub> and vitamin C. We had completed the first psychiatric double blind controlled experiments between 1952 and 1960 and showed that adding vitamin B<sub>3</sub> doubled the two years recovery rate of schizophrenic patients. In order to make this information available to the public we published our book *How To Live With Schizophrenia* with Fannie Kahan, my sister, as the lead writer. This led to the recovery of a schizophrenic young woman in a small town in California. Her father was so impressed he decided to proselytize the method leaving copies with every doctor who would see him. One of these fell into the hands of a psychiatrist friend of Ava Linus Pauling. While at the friend's place having tea, Pauling saw

the book on her coffee table. He borrowed it, spent the whole night reading it and the next morning reversed his decision to retire and accepted a distinguished professorship in San Diego. What had surprised him was the fact that we were using vitamins in doses so much higher than those recommend by the RDAs. He was already sensitive to the value of vitamins, natural molecules because of his interest in molecular medicine. As he later told many of his audiences he began to think about it and concluded not only that our work merited more attention but that he could explain biochemically how nutrients could become vitamins, i.e. would no longer be made in the body and would have to be ingested in food. His 1968 *Science* paper, *Orthomolecular Psychiatry*, is one of the most important seminal papers and because of it, millions of people all over the world who have benefited from orthomolecular medicine will forever be grateful to him. Had he been a psychiatrist and had access to schizophrenic patients as we had, there is no doubt in my mind that he would have continued to pursue his studies in this direction.

It was easier to work with cancer than schizophrenia. For the rest of his life Pauling devoted himself to describing and promoting the proper examination and use of vitamin C as a major nutrient, not only for cancer but for a wide variety of other conditions. I will not review what he did but I do want to point out that in my opinion Linus Pauling was the greatest scientist of all time. It is possible to win the Nobel prize with one discovery. It is possible that that discovery was made by good luck or chance. In my opinion that is not the test of genius. Genius is present when the individual continues to make discoveries and this is what Linus did. He towered over chemistry like a colossus, completely altered it and made it modern. He helped the world achieve some freedom from atomic bombs and radiation and having

achieved these goals he pursued one of his greatest ambitions, to improve the lot of mankind by improving their health. Beginning at age 65, when he could have retired, he entered perhaps his toughest and most prolonged controversy for the next 30 years.

For that I am grateful to him. When I need to reinforce my energy, when I find I am getting impatient, when I find that I begin to resent the opposition to our work, I turn to Pauling, my mentor and role model, to find the strength to continue. Without Linus Pauling, two-time unshared Nobel Prize winner, recipient of nearly 40 PhDs and DScs, orthomolecular medicine would have required another 20 years or more before reaching its present state, there would be no *Journal of Orthomolecular Medicine*, no *International Society for Orthomolecular Medicine* and those few schizophrenic and other patients fortunate enough to have received orthomolecular treatment would be either dead, on the streets, or in some chronic institution.

– Abram Hoffer, MD, PhD

#### *Corrections*

1. In JOM 16.1, A. Dardanelli, M.D. should have been listed as the sole author of the article "Successful Recoveries with Orthomolecular Treatment."
2. In JOM 16.3, the dates given for Rose Hoffer's birth and death in her obituary were incorrect; they are April 10, 1920 and August 5, 2001.