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Year's End: A Time to Reflect On—and Listen to—Voices From the Past

In May of 2009, Dr. Abram Hoffer, a founding father of the field of orthomolecular medicine, passed away in Victoria, British Columbia following a brief illness. Dr. Hoffer had been a longtime mentor, colleague, and friend to Dr. Bland, who, upon hearing of his death, sent out a message to his staff in which he said, "Dr. Hoffer's work in liberating thousands of people from the bondage of what is called schizophrenia stands head and shoulders as one of the most important discoveries in medicine in the past fifty years. Those of us who have benefited from Dr. Hoffer's contributions will continue to keep his spirit alive and vital."

Having just made a personal visit to Dr. Hoffer in December 2008 to present him with the 14th Linus Pauling Functional Medicine Award on behalf of the Institute for Functional Medicine and also to record an interview, a plan for a tribute issue of *Functional Medicine Update* was made. Recalling that he had also interviewed Dr. Linus Pauling many years ago, Dr. Bland decided on a special, double issue (a first for FMU) to honor both men and the contributions they have made to medicine and the world at large. Drawers were opened and rummaged through, the bookshelves were searched, boxes were taken out of storage, and a dusty audiotape with a typed, hand-affixed label stating "Linus Pauling" was located.

On behalf of Dr. Jeffrey Bland, please enjoy this rare opportunity to hear directly from two of the greatest medical minds the world has known.

Clinicians/Researchers of the Month

Linus Pauling, PhD 1901 - 1994 Recipient of the Nobel Prize in Chemistry, 1954 Recipient of the Nobel Peace Prize, 1962

Interview recorded circa 1982 at the Linus Pauling Institute of Science and Medicine

In the early 1980s, while a Senior Research Fellow at the Linus Pauling Institute of Science and Medicine, Dr. Jeffrey Bland suggested to his mentor that they sit down and record an interview—a "fireside chat," they called it—that might be used to showcase the activities and research of the organization, which was then in the midst of conducting groundbreaking research on vitamin C. Now a part of history, this interview captured not

only the thoughts, words, and charm of a legend—Dr. Linus Pauling—but also the start of what would become a thirty-year journey for Dr. Bland to diligently document—though interviews—the work of individuals who have contributed to the emerging science that underpins the concepts of functional medicine and a systems biology approach to medicine.

Dr. Linus Pauling was born in Portland, Oregon on February 28, 1901. In 1922 he received a bachelor's degree in chemical engineering from the Oregon Agricultural College (now Oregon State University), and was drawn to studying how and why particular atoms form bonds with each other to create molecules with unique structures. Dr. Pauling did his postgraduate study at the California Institute of Technology (Caltech), where he earned a PhD in chemistry and mathematical physics in 1925.

Dr. Pauling married his wife, Ava Helen Pauling, in 1923. He frequently credited her with influencing the development of his social consciousness and has been quoted as saying that his Nobel Peace Prize should really have gone to her, or at least been shared between them. The Paulings had four children. Ava Helen died in 1981, and the Linus Pauling Institute established the endowed Ava Helen Pauling Chair in 2001 to honor her memory.

Dr. Linus Pauling was a remarkable man who addressed crucial human problems while pursuing an amazing array of scientific interests. For many years he was probably the most visible, vocal, and accessible American scientist. He is the only person ever to receive two unshared Nobel Prizes—for Chemistry (1954) and for Peace (1962). During the course of his life, Dr. Pauling produced a multitude of scholarly scientific papers on a variety of subjects in numerous research fields. His book, *The Nature of the Chemical Bond*, is frequently cited as the most influential scientific book of the 20th century.

Dr. Pauling died in August 1994 at his home in Big Sur, California. In 1996, the assets of the Linus Pauling Institute of Science and Medicine were used to establish the Linus Pauling Research Institute (LPI) at Oregon State University. The research goal of LPI is to investigate the function and role of micronutrients, phytochemicals, and microconstituents of food in maintaining human health and preventing and treating disease, as well as to advance knowledge, through research and education, in areas that were of interest to Linus Pauling.

To learn more about Dr. Pauling, visit the Linus Pauling Institute website at www.lpi.oregonstate.edu.

Abram Hoffer, MD, PhD 1917 – 2009

Interview recorded in December 2008 in Dr. Hoffer's office in Victoria, British Columbia.

In December 2008, Dr. Bland traveled to Victoria, British Columbia to meet with Dr. Abram Hoffer and present him with the 14th Linus Pauling Functional Medicine Award from the Institute for Functional Medicine (IFM). The award presentation and the conversation that followed were videotaped for IFM's archive, and audio excerpts from this meeting were generously made available by IFM for the purpose of sharing with Dr. Bland's *Functional Medicine Update* audience.

Dr. Abram Hoffer was born on November 11, 1917 on a farm in Saskatchewan. As a boy he studied in a one-room schoolhouse, but went on to earn degrees from the University of Saskatchewan (BSA, MSA), the University of Minnesota (PhD), and the University of Toronto (MD). He specialized in psychiatry and was, for many years, director of psychiatric research for the Saskatchewan Department of Public Health and associate professor of medicine at the University of Saskatchewan, Saskatoon. He carried out groundbreaking research and collaborated with many noted and respected scientists, including renowned geneticist Ernst Mayr, Dr. Humphry Osmond, and Dr. Linus Pauling.

In the 1950s, Dr. Hoffer challenged the then-dominant view of schizophrenia as a psychological disorder caused by poor mothering, and contributed importantly to the formation of the field of neuropsychopharmacology. He co-discovered the first effective lipid-lowering agent, the B vitamin niacin, and also developed a controversial treatment for acute schizophrenia based on the principles of respect, shelter, sound nutrition, appropriate medication, and the administration of large doses of certain water-soluble vitamins. Dr. Linus Pauling championed the biochemical model for treating schizophrenia that was developed in Saskatchewan and coined the term "orthomolecular psychiatry" as a result of this research.

Dr. Hoffer moved to Victoria in 1976 where he practiced psychiatry for many years, becoming a founding member and president of the Senior Physicians Association of British Columbia. Dr. Hoffer was married to his wife, Rose, for decades and together they had three children. Rose passed away in 2001. Dr. Hoffer died on May 28, 2009. One of Dr. Hoffer's sons, Dr. Leonard John Hoffer, wrote his father's obituary and stated, "He devoted his life to the goal of curing—not palliating—schizophrenia."

To learn more about Dr. Hoffer and his legacy, visit the International Society for Orthomolecular Medicine website, www.orthomed.org.

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