Scurvy had long been the scourge of those who sailed for extended distances without fresh food supplies. The first clear-cut descriptions was cited as major cause of disability and mortality among sailors by 16th Century. Ships surgeon in the British Royal Navy, James Lind, showed that citrus fruits prevented the disease. He published his “Treatise on Scurvy” in 1753. The name “ant scorbutic” was used as a general term for these foods.

In 1912, the Polish-American biochemist Casimir Funk, developed the concept of vitamins to refer to the non-mineral micro-nutrients which are essential in health. He named them- Vitamins. Anti-scorbutic factor was called Vitamin-C.

Albert Szent-Gyorgyi (1893-1986): Szent was born in Budapest. His studies in Medicine were interrupted by WW-I, in which he served on Italian and Russian front. He wounded himself to escape and returned to the University to finish his studies in 1917. In the course of his studies, Szent-Gyorgyi isolated a molecule from adrenal cortex that lost and regained hydrogen atoms. This “hydrogen carrier”, containing six carbon atoms, had properties of sugar and an acid and was christened “hexuronic acid” by Szent. In 1920, he became interested in cell respiration and energy production in plants and began to closely investigate “browning process” that impeded growth and normal function. He discovered that this was due to damage at cellular level, a breakdown in the mechanism that supplied enough hydrogen to prevent excessive oxidation by free radicals.

In 1930, Szent-Gyorgyi returned to Hungary as professor of Medical Chemistry. There he showed his sample of hexuronic acid to J. L. Svirbely, an American-born chemist of Hungarian descent. They conducted landmark experiments on guinea pigs. Those who received boiled food (which destroyed Vitamin-C) developed scurvy. Svirbely and Szent-Gyorgyi concluded that hexuronic acid (renamed ascorbic acid) was indeed the long sought Vitamin-C. Although juice of orange and lemon have high levels of vitamin-C, they contain sugar that makes purification extremely difficult. Szent-Gyorgyi extracted vitamin-C in kilogram quantities from paprika.

Szent-Gyorgyi received the Nobel Prize for his seminal work (1937). In 1934, British chemists Sir Walter Haworth and Herst and independently, the Polish chemist Tadeus Richstein, succeeded in synthesizing the vitamin, making it to be the first artificially produced vitamin. It made mass production possible in a cheap manner. Only Haworth was awarded the 1937 Nobel Prize in Chemistry for his work but "Richsteins process" retained Richsteins’ name.

Szent-Gyorgyi turned to the study of organic compounds that laid foundation of Kreb’s cycle by Hans Kreb. Szent immigrated to United States (1947), where he assumed directorship of the Institute of muscle research, Massachusetts. Albert Szent-Gyorgyi died on Oct 22, 1986.

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