

PRESENTATION

The Latin American Center for Nutrition and Metabolic Studies, CELANEM, is proud to present this supplement of the Latin American Archives of Nutrition, that is completely devoted to the latest research on an iron amino acid chelate, commercially known as Ferrochel[®], and chemically as iron bis-glycinate chelate, CAS No. 20150-34-9, now recognized as G.R.A.S. by the U.S. Food and Drug Administration (No. GRN 000019).

Since the later part of the 1980s, CELANEM has participated in research on the effectiveness of Ferrochel and other iron chelates such as the TF iron amino acid chelate (taste free iron chelate), compounds that are produced and registered by Albion Laboratories, Inc, of Clearfield, Utah, U.S.A.

During this time, a significant amount of investigation has been carried out, followed by publication in scientific journals that assisted in defining the advantages of the amino acid chelates for the control of iron deficiency and iron deficiency anemia all around the world.

In spite of all our efforts, some uncertainty persists about the effectiveness and safety of the amino acid chelates that in our opinion is the results of a poor understanding of what these chelates are, how they are absorbed, how they exert their effect in the human body, and how they are regulated in their absorption by the iron reserves of the body, and how toxic they may be. There has been a strong effort to show and publish the very low toxicity of these compounds as established by research in experimental animals that include acute, semichronic and chronic toxicity. It has been proven that the iron amino acid chelates show a very low toxicity, and has been successfully used in fortification of a number of food matrixes.

In the first part of the supplement we present an introduction, written by one of the leading experts in the field of iron deficiency control that focuses on the importance of iron deficiency and anemia in the world, followed by papers on the chemistry of chelation, the bioavailability, the absorption, the regulation, the toxicity and stability of Ferrochel in the presence of different compounds.

In the second part we present papers on the effectiveness of Ferrochel in clinical trials for control of iron deficiency and iron deficiency anemia in pregnant women, field trials in Tanzania, and several papers on the use, effectiveness and evaluation of the fortification of wheat flours, bread and sugar, as a mean of controlling iron deficiency anemia, and finally a discussion by the director of CELANEM on the implications of the research presented.

Oscar Pineda
Director of CELANEM

Note: All the iron chelates used in the investigations presented as well as other chelates discussed in some of the papers are produced, patented and registered by Albion Laboratories, Inc. of Clearfield, Utah, U.S.A., that kindly provided all the chelates used in the investigations and for which the authors and CELANEM are greatly indebted.