



Spinach Satiety Product to Drop in 2012

June 16, 2011, LOS ANGELES—Green Leaf Medical AB licensed all IP/patent rights linked to the production and use of the new appetite-reducing substance thylakoids so that it can now be added to natural weight management products. Thylakoids is concentrated from spinach, and the research, as well as the technology used for the work with thylakoids, was developed by professor Charlotte Erlanson-Albertsson, department of experimental medical science, and professor Per-Åke Albertsson, department of biochemistry, Lund University, Sweden.

CEO Green Leaf Medical AB CEO Anders Struksnes said thylakoid's effect on appetite and the assimilation on fat and carbohydrates have potential on the food supplement and as functional food and drink markets. The product will be introduced to market sometime during 2012. The company will also carry out several long-term studies during the fall and winter 2011/2012, and establish regulatory processes with authorities in the EU and the USA.

Green foods, such as spinach, are increasing in general awareness over the past five years, as the health food industry and media spread the word on the many health benefits of these nutritionally dense superfoods.

A thylakoid is a membrane-bound compartment inside chloroplasts of plant cells where photosynthesis and other biochemical processes take place. The research at Lund University, which is one of the leading nutritional research Universities in northern Europe, shows both in vitro and in vivo studies (both animals and humans) that thylakoids reduces appetite and prevents assimilation of fat and carbohydrates. The appetite-reducing effect that is started by the thylakoid product directly after intake is completely physiological and lasts for at least six hours.

"What is unique in this concept is to let a natural and concentrated ingredient, in this case membrane proteins/lipids from leaves, stimulate a process in the intestine that creates satiety," Erlanson-Albertsson said. "The principle is to use thylakoids to stimulate an endogenous process, without adding a satiety hormone. The latter has been tested earlier, for example injections with leptin and cholecystokinin, but when administering these preparations, they do not have strong effect since they rapidly break down in the body. Through activation of the endogenous satiety signalling systems with thylakoids, the signals are effective and work for a long time."

Thylakoids affects both the intestine and the brain. Hunger and satiety are regulated by processes in both the intestine and the brain, and both must be involved to create satisfaction for the human being.



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“A drug, or a substance, which affects the brain has often unspecific effects,” Erlanson-Albertsson added. “The brain has so many receptors, it is difficult to get a specific effect. With our thylakoid substance we are generating a natural signal from the intestine, and the body is sending the signals from the intestine to the brain, so that the signals get very specific.”

Studies in human cross over models show the thylakoid substance is effective against abdominal obesity. The thylakoids gives an increased level of satiety hormones, which partly can explain the effect. However, the scientists could also see thylakoids seems to decrease biochemical markers of inflammation.