Non-Crystalline Cellulose, Inc. (NCCI)

Executive Summary

Overview

This proposal is a blueprint for a potential business based on a process for making Non-Crystalline Cellulose (NCC; patent pending) production developed at Auburn University. NCCI is a fictitious name of a company that the potential licensee of this technology might use. This one-stop proposal covers all aspects of a startup business based on NCC and is intended to help the potential investor.

The objective of this business is to commercially manufacture and sell Non-Crystalline Cellulose (NCC) employing a proprietary process invented at Auburn University. Cellulose is generally recognized as a safe and acceptable polymer class for use in food and pharmaceutical products. Auburn University's non-crystalline cellulose has superior physical properties compared to current cellulosic material widely used in the food and pharmaceutical industries in the form of microcrystalline cellulose (MCC). NCC has three strong reasons for replacing MCC: (1) it is extremely inexpensive to manufacture using the proprietary process (patent pending), (2) higher water absorption capability, and (3) has higher dispersion capability. Currently, microcrystalline cellulose ($3.2 billion US market) is used by the food industry as a fat-replacer and by the pharmaceutical industry as an approved filler or excipient in pills. In pharmaceutical applications, NCC can disperse into the blood stream faster, allowing the medicine to take effect more quickly. The superior water absorption property of NCC makes it a better emulsifier and fat replacer in food products.

Mission/Objectives

The mission of NCCI includes, (1) to license the invention from Auburn University for producing non-crystalline cellulose to manufacture and sell commercial quantities to the pharmaceutical and food industries either as a food additive, pharmaceutical excipient, or as a replacement of edible cellulosic materials such as MCC which has a large market (30,000 tons/yr in the US; 50,000 tons worldwide); (2) obtain a Generally Recognized As Safe (GRAS) determination in three months from FDA for NCC to enable its marketing as a food additive and a drug filler material with technical data on hand; (3) raise capital to the extent of about $1.58 million to build a commercial size plant; (4) to put together a management team to make and sell 300 tons/yr of NCC in 18 months to food processors and pharmaceuticals as a replacement for MCC they already use; and (4) to recover the investment in less than 12 months after initial investment.