IMMUNE RESPONSE SUPPRESSOR AND TREATMENT OF MULTIPLE SCLEROSIS

Market: There is a large market demand for therapeutic compounds addressing multiple sclerosis. Approximately 350,000 Americans and 3 million worldwide live with this disease. However, a significant number of patients do not respond to current therapies. With this type of demand, it is not surprising that the 2006 multiple sclerosis therapeutic market was estimated to have exceeded $4.9 billion (Espicom.com, 2006).

Competitors and Current Problems: Multiple sclerosis is a chronic inflammatory and demyelinating disease of the central nervous system. The disease is thought to be a T cell-mediated autoimmune disease. There is no known cure for multiple sclerosis. Immunomodulators are used to manage the effects of multiple sclerosis; however these drugs have several drawbacks, such as lipoatrophy at the injection site, liver damage, and immunosuppressivity. There is a huge unmet need for alternative therapies that lack these side effects.

The Technology: A researcher at the University of Texas Health Science Center at Houston (UTHSC-H) has developed a novel method for the treatment of multiple sclerosis or other autoimmune diseases. Specifically, soluble immune response suppressors (SIRS) are used to decrease the severity of or frequency of a relapse of multiple sclerosis and to increase immunosuppressive cytokine activity in the central nervous system in a human. Furthermore, the use of SIRS can potentially decrease inflammation associated with an autoimmune disease.