

Novel Therapeutic Combinations for the Treatment of Hepatic Fibrosis

Hepatic fibrosis, or scarring of the liver, is a common, albeit serious, symptom and cause of many bodily ailments. Ranging from an acute cause (toxins or pharmaceutical overdose) to chronic disease states (alcoholism and genetic predispositions), this fibrotic state causes a myriad of symptoms, resulting in a state of misery that is almost unparalleled in modern medicine. Hundreds of millions of dollars are being spent to better understand the scarring process, as well as finding new therapeutic avenues for the treatment of both the cause and its effects.

A presentation on my research into hepatic stellate cells (HSCs), the intricacies of their role in the development and progression of hepatic fibrosis, and novel therapeutic combinations to treat, even reverse the fibrotic process in the liver would be given along with a patient case study of a man who is currently facing this dire medical crisis. During this presentation, the pervasiveness of hepatic fibrosis in the clinical health fields, the current treatment regimen, and the experimental design of my research would all be detailed to show the need for a better understanding of the fibrotic process.

Currently, I am working with the Biomedical Masters Program and the Graduate Office to secure funding for my research to move beyond theory and literature reviews, into clinical trials involving both cell culture and murine subjects. The design of these experiments would be outlined in laymen's terms, including the various medications, and combinations of medications, and their proposed cumulative effects on the mice. Afterward, a question and answer section would be given.