The Light/Lymphotoxin Costimulatory Family and Lipid Metabolism

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Costimulatory molecules serve an important role in immune cell activation and have been shown to affect the extent of atherosclerosis. This study looked at costimulatory molecules in the LIGHT/Lymphotoxin family and how they affect levels of plasma lipids, which can influence atherosclerotic development. Previous research indicates that deficiencies in molecules involved in this costimulatory pathway result in lower plasma lipid levels. In this study we developed and tested several hypotheses that may account for these differences. We tested if this costimulatory family influenced the accumulation of lipids in the liver, the secretion of lipids by the liver, the absorption of lipid by enterocytes and the expression of hepatic genes involved in lipoprotein biosynthesis.