Abstract

Obesity is a growing problem in United States. It is a metabolic disorder which causes excessive body fat to increase the risk of diseases and health problems. Regular exercise and a good diet have been touted as ways to combat obesity. Supplements such as green tea have also been suggested to prevent obesity. Preliminary results from our laboratory have shown that a combination treatment of green tea and exercise may exert a greater preventive effect against a high-fat diet which induced obesity in mice. However, the exact mechanism for this preventive effect is not known. This research will, therefore, be a mechanistic study of how combining green tea and exercise affects the fatty tissues in mice. It is hypothesized that green tea and exercise cause the body to break down more fatty tissues for energy. There exist a few proteins in the fatty tissues which are responsible for this reaction. These proteins will be analyzed. Results from this study could be used to formulate a treatment which targets these proteins to treat and prevent obesity.