**ASARONE STIMULATES LIPOLYSIS IN ADIPOCYTES**

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**Objective:** Asarone is a molecule found in certain plants such as *Acorus calamus*, the root of whichis used in traditional medicine to treat diabetes. Thus we studies how asarone shows its effect.

**Method:** Adipose cell line 3T3-L1 cells were differentiated and treated with asarone. Transcription factor related to adipocyte differentiation and level of lipolysis were determined. **Results:** Treatment of asarone significantly inhibited the differentiation of 3T3-L1 preadipocytes through suppression of expression of the transcription factors, CCAAT/enhancer binding protein-α and peroxisome proliferator activated receptor-γ, which activate adipogenesis. Intracellular triglyceride levels were reduced by asarone in a dose-dependent manner and asarone treatment stimulated the phosphorylation of hormone-sensitive lipase.

**Conclusion:**Asarone inhibits adipogenesis by down-regulation of PPARγ and C/EBPα and reduces lipid accumulation by stimulation of lipolysis through an increase in hormone-sensitive lipase activity.