

## Analysis Table

- 17 records/ articles analyzed.
- Below table covers articles (1 to 8), which are talking about inhibition or stimulation of HSL by the chemical compounds.

| S.No. | Database/<br>Accession<br>Number | Focus  | Compounds                         | HSL Activity/<br>Expression                                       | Function of<br>the<br>compounds  | Disease/Disorder<br>(to be treated/<br>associated with)                        | Dolcera summary  |
|-------|----------------------------------|--|-----------------------------------|---|--|--|--|
| 1     | BIOSIS /<br>2006:234207          | Expression of the HSL gene by the PPAR gamma and PPAR gamma agonists (rosiglitazone and pioglitazone) in the cultured hepatic cells and differentiating preadipocytes. | Rosiglitazone                     | Up-regulation   | Rosiglitazone up-regulates the HSL gene in liver and skeleton muscle (from an experimental obese rat model). | Type 2 diabetes  | This study is focused on expression of the HSL gene by PPAR gamma and PPAR gamma agonists (rosiglitazone and pioglitazone) in the cultured hepatic cells and differentiating preadipocytes. Rosiglitazone up-regulates the HSL gene. In conclusion, the study suggests that HSL may be a newly identified PPAR gamma target gene, and up-regulation of HSL may be an important mechanism involved in action of PPAR gamma agonists in type 2 diabetes. |
| 2     | BIOSIS /<br>2004:316145          | Inhibitors of hormone sensitive lipase.  | (5-(2H)-isoxazolonyl) ureas       | Inhibition  | Inhibits HSL   | Diabetes   | (5-(2H)-isoxazolonyl) ureas, inhibitors of hormone-sensitive lipase, an enzyme of potential importance in the treatment of diabetes.   |
| 3     | BIOSIS /<br>2004:256580          | Inhibitors of hormone sensitive lipase   | Carbazates                        | Inhibition  | Inhibits HSL   | Peripheral insulin resistance (in obese, prediabetic and diabetic individuals) | Carbazates, inhibitors of the catalytic activity of HSL. HSL is a potential pharmacological target for the prevention of peripheral insulin resistance in obese, prediabetic and diabetic individuals.   |
| 4     | BIOSIS /<br>2004:136651          | Inhibitors of hormone sensitive lipase   | Methyl-phenyl-carbamoyl-triazoles | Inhibition  | Inhibits HSL   | Type 2 diabetes, metabolic syndrome, and impaired glucose tolerance            | Methyl-phenyl-carbamoyl-triazoles are potent HSL inhibitors. HSL regulates fatty acid metabolism makes it an pharmacological target for the treatment of insulin resistant and dyslipidemic disorders where a decrease in delivery of fatty acids to the circulation is desirable in individuals with type 2 diabetes, metabolic syndrome, or impaired glucose tolerance.  |
| 5     | BIOSIS /<br>2002:429399          | Inhibitors of hormone sensitive lipase   | Cyclipostins                      | Inhibition  | Inhibits HSL   | Type 2 diabetes  | Cyclipostins are inhibitors of hormone-sensitive lipase (HSL). HSL is a key enzyme of lipid metabolism and its control is therefore a target in the treatment of diabetes mellitus.  |
| 6     | EMBASE /<br>1998360072           | Moderate dose of fish oil on glycemic control and in vivo insulin action in type 2 diabetic men  | Fish oil                          | Up-regulation (increase the amount of mRNA HSL in adipose tissue) | Up-regulates HSL expression  | Type 2 diabetes  | This study is on effect of a moderate dose of fish oil on glycemic control and <i>in vivo</i> insulin action in type 2 diabetic men with elevated plasma triacylglycerols. In conclusion, A moderate dose of fish oil did not lead to deleterious effects on glycemic control or whole-body insulin sensitivity in type 2 diabetic men. Fish oil tended to increase the amount of mRNA HSL in adipose tissue.  |
| 7     | DISSABS /<br>2006:21112          | Inhibitors of hormonesensitive lipase  | Cyclipostins                      | Inhibition  | Inhibits HSL   | Type 2 diabetes  | Article is on synthesis of cyclipostins. Cyclipostins are novel class of natural product possesses strong inhibitory action against hormone-sensitive lipase and has potential in the development of therapeutic agents to regulate lipolysis for the treatment of noninsulin-dependent diabetes mellitus (NIDDM).   |
| 8     | DISSABS /<br>1999:39502          | Beta3-adrenergic agonist   | Trecadrine                        | Stimulation   | Stimulates HSL activity  | Diabetes, and obesity  | Beta3-adrenergic agonist, trecadrine increases the activity of hormone sensitive lipase and the consumption of oxygen in vitro in white fat.   |