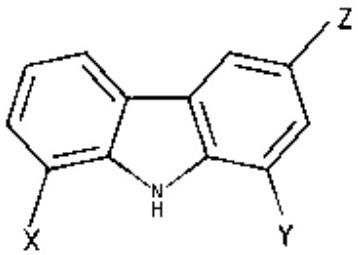
Figure 9 depicts the Insulin mimicking effect of compound I in skeletal muscle and Liver of db/db mice

SUMMARY:

The present disclosure discloses a compound of structural formula I :



Formula I

or a pharmaceutically acceptable salt thereof; in which

X is selected from a group comprising of

1. unsubstituted or substituted linear aliphatic alkyl carboxylic acids,
2. unsubstituted or substituted branched aliphatic alkyl carboxylic acids,
3. unsubstituted or substituted linear aliphatic Alkenyl/ Alkynyl carboxylic acids,
4. unsubstituted or substituted branched aliphatic Alkenyl/ Alkynyl carboxylic acids,
5. unsubstituted or substituted aromatic carboxylic acid and
6. unsubstituted or substituted heteroaryl carboxylic acid;

Y is selected from a group comprising of

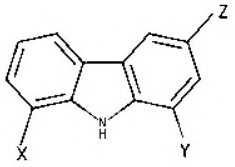
1. unsubstituted or substituted linear aliphatic alkoxy group,
2. unsubstituted or substituted branched aliphatic alkoxy group,
3. unsubstituted or substituted linear aliphatic alkenyl/alkynyl oxy group,

4. unsubstituted or substituted branched aliphatic alkenyl/alkynyl oxy group,
5. unsubstituted or substituted aryloxy group and
6. unsubstituted or substituted heteroaryloxy group;

Z is selected from a group comprising of

1. unsubstituted or substituted linear aliphatic alkyl hydroxyl group,
2. unsubstituted or substituted branched aliphatic alkyl hydroxyl group,
3. unsubstituted or substituted linear aliphatic Alkenyl/ Alkynyl hydroxyl group,
4. unsubstituted or substituted branched aliphatic Alkenyl/ Alkynyl hydroxyl group,
5. unsubstituted or substituted aromatic hydroxyl group and
6. unsubstituted or substituted heteroaryl hydroxyl group;

In one aspect, the present disclosure refers to a compound of structural formula I :



Formula I

or a pharmaceutically acceptable salt thereof; wherein

X is selected from a group comprising of

1. unsubstituted or substituted linear aliphatic alkyl carboxylic acids,
2. unsubstituted or substituted branched aliphatic alkyl carboxylic acids,
3. unsubstituted or substituted linear aliphatic Alkenyl/ Alkynyl carboxylic acids,
4. unsubstituted or substituted branched aliphatic Alkenyl/ Alkynyl carboxylic acids,
5. unsubstituted or substituted aromatic carboxylic acid and
6. unsubstituted or substituted heteroaryl carboxylic acid;

Y is selected from a group comprising of

1. unsubstituted or substituted linear aliphatic alkoxy group,
2. unsubstituted or substituted branched aliphatic alkoxy group,
3. unsubstituted or substituted linear aliphatic alkenyl/alkynyl oxy group,
4. unsubstituted or substituted branched aliphatic alkenyl/alkynyl oxy group,
5. unsubstituted or substituted aryloxy group and
6. unsubstituted or substituted heteroaryloxy group;

Z is selected from a group comprising of

1. unsubstituted or substituted linear aliphatic alkyl hydroxyl group,
2. unsubstituted or substituted branched aliphatic alkyl hydroxyl group,
3. unsubstituted or substituted linear aliphatic Alkenyl/ Alkynyl hydroxyl group,
4. unsubstituted or substituted branched aliphatic Alkenyl/ Alkynyl hydroxyl group,
5. unsubstituted or substituted aromatic hydroxyl group and
6. unsubstituted or substituted heteroaryl hydroxyl group;

In one aspect, the present disclosure refers to a pharmaceutical composition comprising a therapeutically effective amount of compound disclosed herein, or a therapeutically effective amount of pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

In one aspect, the present disclosure refers to a pharmaceutical composition comprising a therapeutically effective amount of compound disclosed herein, and a pharmaceutically acceptable carrier.

DETAILED DESCRIPTION OF THE INVENTION:

DEFINITIONS:

Alkyl" means saturated carbon chains which may be linear or branched or combinations thereof, unless the carbon chain is defined otherwise. Other groups having the prefix "alk", such as alkoxy and alkanoyl, also may be linear or branched, or combinations thereof, unless the carbon chain is defined otherwise. Examples of alkyl groups include methyl, ethyl, propyl, isopropyl, butyl, sec- and tert-butyl, pentyl, hexyl, heptyl, octyl, nonyl, and the like. In one embodiment of the present invention, alkyl is methyl.

Alkenyl" means carbon chains which contain at least one carbon-carbon double bond, and which may be linear or branched, or combinations thereof, unless otherwise defined. Examples of alkenyl include vinyl, allyl, isopropenyl, pentenyl, hexenyl, heptenyl, 1-propenyl, 2-butenyl, 2-methyl-2-butenyl, and the like. In one embodiment