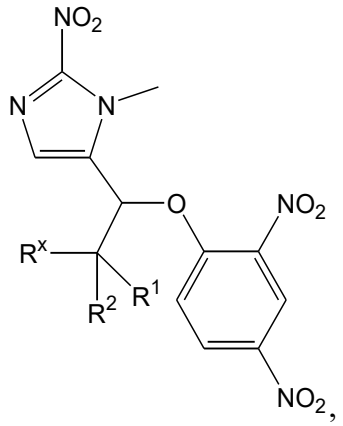
CLAIMS

1. A compound having structural formula (**I**):



(**I**)

or a pharmaceutically acceptable form or an isotope derivative thereof, wherein

each of R^1 and R^2 is independently a C_{1-6} alkyl, or R^1 and R^2, together with the carbon atom they are bonded to, form a 3- to 8-membered carbocyclic or heterocyclic ring, wherein the C_{1-6} alkyl and the 3- to 8-membered carbocyclic or heterocyclic ring are optionally substituted with 1-6 R^A; and

R^X is L-R^{X1}, L-R^{X2} or L-R^{X3}, wherein

L is a single bond or $(CH_2)_n$, wherein n is 1, 2 or 3;

R^{X1} is a group selected from: $C(=O)OR^3$, $C(=O)NR^4R^5$, OR^6, NR^7R^8, $NR^9C(=O)R^{10}$, $OC(=O)R^{11}$, halo and CN;

R^{X2} is a 5- or 6-membered monocyclic carbocyclic, heterocycle, aryl or heteroaryl group, optionally substituted with 1-4 R^B; and

R^{X3} is an 8- to 10-membered bicyclic carbocyclic, heterocycle, aryl or heteroaryl group, optionally substituted with 1-6 R^B;

each of R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10} and R^{11}

is independently selected from H and C_{1-6} alkyl, 3- to 8-membered carbocyclic or heterocyclic ring, optionally substituted with 1-6 R^A, or

R^4 and R^5 or R^7 and R^8, together with the N atom they are bonded to, respectively, form a 3- to 8-membered heterocyclic ring, optionally substituted with 1-6

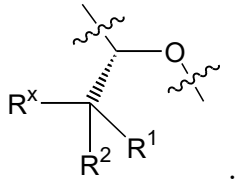
R^A;

each R^A is independently selected from the group consisting of: D, halo, R and OR;

each R^B is independently selected from the group consisting of: D, halo, CN, R, OR, NRR', C(=O)OR, C(=O)NRR', NRC(=O)R', OC(=O)R, SO_4R, and OC(=O)CHCHC(=O)OR'; and

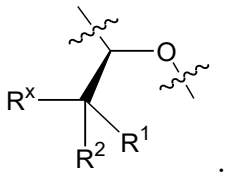
each R and R' is independently H or C_{1-3} alkyl.

2. The compound of claim 1, having a chirality as shown below:



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3. The compound of claim 1, having a chirality as shown below:



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4. The compound of any one of claims 1-3, wherein each of R^1 and R^2 is independently a C_{1-3} alkyl.

5. The compound of any one of claims 1-3, wherein each of R^1 and R^2 is methyl.

6. The compound of any one of claims 1-3, wherein R^1 and R^2, together with the carbon atom they are bonded to, form a 3- to 6-membered carbocyclic ring.

7. The compound of claim 6, wherein the 3- to 6-membered carbocyclic ring is cyclopropyl.

8. The compound of any one of claims 1-3, wherein R^1 and R^2, together with the carbon

atom they are bonded to, form a 3- to 6-membered heterocyclic ring.

9. The compound of any one of claims 1-8, wherein R^X is L-R^{X1}.

10. The compound of any one of claims 1-8, wherein R^X is L-R^{X2}.

11. The compound of any one of claims 1-8, wherein R^X is L-R^{X3}.

12. The compound of claim 9, wherein R^{X1} is $C(=O)OR^3$.

13. The compound of claim 9, wherein R^{X1} is $C(=O)NR^4R^5$.

14. The compound of claim 10, wherein R^{X2} is 5-membered heteroaryl group, optionally substituted with 1-4 R^B.

15. The compound of claim 10, wherein R^{X2} is 6-membered aryl or heteroaryl group, optionally substituted with 1-4 R^B.

16. The compound of claim 11, wherein R^{X3} is a 9-membered bicyclic aryl or heteroaryl group, optionally substituted with 1-6 R^B.

17. The compound of claim 11, wherein R^{X3} is a 10-membered bicyclic aryl or heteroaryl group, optionally substituted with 1-6 R^B.

18. The compound of any one of claims 1-17, wherein L is a single bond.

19. The compound of any one of claims 1-17, wherein L is $(CH_2)_n$, wherein n is 1, 2 or 3.

20. The compound of claim 19, wherein n is 1.

21. A compound selected from **Table 1**.

22. A pharmaceutical composition comprising a compound according to any of claims 1-21.

23. Use of a compound of any of claims 1-21, and a pharmaceutically acceptable excipient, carrier, or diluent, in preparation of a medicament for treating a disease or disorder.

24. The use of claim 23, wherein the disease or disorder is selected from the group consisting of obesity, excess body fat, diabetes, insulin resistance or intolerance, high blood pressure, dyslipidemia, cardiovascular disease, atherosclerosis, hypertriglyceridemia, acquired lipodystrophy, inherited lipodystrophy, partial lipodystrophy, metabolic syndrome, Rett's syndrome, metabolic syndrome associated with aging, metabolic diseases associated with increased reactive oxygen species (ROS), Friedreich's ataxia, and liver disease, or a related disease or disorder.