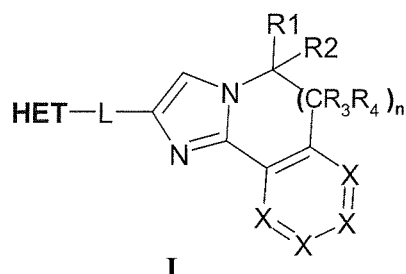


Claims

1. A compound having the structure I



wherein

n is 0 or 1,

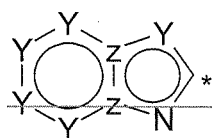
X is selected from the group consisting of CH, CF, COCH₃, COH, and N; with the limitation that no more than one X is N;

R1 and R2 are each selected independently from the group consisting of H; C1-C6 alkyl such as methyl, ethyl, 1-propyl, 2-propyl, isobutyl; C1-C6 alkyl(C3-C8)cycloalkyl such as cyclopropylmethyl; C1-C6 hydroxyalkyl such as hydroxyethyl; C1-C6 alkoxy such as methoxy and ethoxy; CH₂CN; CH₂C(O)NH₂; C1-C6 arylalkyl such as benzyl and 4-chlorobenzyl; and C1-C6 alkyl-heterocycloalkyl such as tetrahydropyran-4-yl-methyl and 2-morpholin-4-yl-ethyl; halogen such as F; and hydroxy;

R3 and R4 are each selected independently from the group consisting of H, OH, F, CH₃, and OCH₃;

L is a linker selected from the group consisting of -CH₂-CH₂-, -CH=CH-, -CH₂-S-, and -S-CH₂-; and

HET is a heteroaromatic group selected from the group consisting of [1,2,4]triazolo[1,5-a]pyrazine, [1,2,4]triazolo[1,5-a]pyridine, and [1,2,4]Triazolo[1,5-a]pyrimidine; formula II containing from 2 to 4 nitrogen atoms;



~~H~~

wherein

~~Y can be N or CH, Z can be N or C; and~~

~~HET optionally can be substituted with up to three substituents R5, R6 and R7 individually selected from the group consisting of H; C1-C6 alkyl such as methyl; halogen such as chlorine, fluorine or bromine; cyano; halo(C1-C6)alkyl such as trifluoromethyl; aryl such as phenyl; alkoxy, preferably C1-C6 alkoxy, such as methoxy, dimethoxy, ethoxy, methoxy-ethoxy and ethoxy-methoxy, and C1-C6 hydroxyalkyl such as CH₂CH₂OH; and~~

~~"*" denotes the attachment point.~~

~~;~~

and tautomers and pharmaceutically acceptable acid addition salts thereof, and polymorphic forms thereof.

2. The compound according to claim 1 wherein n=0.

3. The compound of Claim 1, wherein (a) C1-C6 alkyl is selected from the group consisting of methyl, ethyl, 1-propyl, 2-propyl, isobutyl; (b) C1-C6 alkyl(C3-C8)cycloalkyl is cyclopropylmethyl; (c) C1-C6 hydroxyalkyl is hydroxyethyl; (d) C1-C6 alkoxy is selected from the group consisting of methoxy and ethoxy; (e) C1-C6 arylalkyl is selected from the group consisting of benzyl and 4-chlorobenzyl; (f) C1-C6 alkyl-heterocycloalkyl is selected from the group consisting of tetrahydropyran-4-yl-methyl and 2-morpholin-4-yl-ethyl; and (g) halogen is F. — in which ~~HET~~ is selected from the group consisting of [1,2,4]triazolo[1,5-a]pyrazine, [1,2,4]triazolo[1,5-a]pyridine, imidazo[1,2-a]pyridine, imidazo[4,5-b]pyrimidine; pyrazolo[1,5-a]pyridine, [1,2,4]Triazolo[1,5-a]pyrimidine, [1,2,4]Triazolo[1,5-c]pyrimidine, and imidazo[1,2-a]pyrimidine.

4. The compound of Claim 31 in which **HET** is selected from the group consisting of 5,8-Dimethyl-[1,2,4]triazolo[1,5-a]pyrazine; 5,8-Dimethyl-[1,2,4]triazolo[1,5-

a]pyridine, 5-methyl-[1,2,4]triazolo[1,5-a]pyridine, and (5-Methyl-[1,2,4]triazolo[1,5-a]pyrazin-8-yl)-methanol.

~~5. The compound of any one of Claim 1-4 wherein L is selected from the group consisting of CH_2CH_2 , $\text{CH}=\text{CH}$, CH_2S , and S-CH_2~~

~~6.5.~~ The compound of claim 1 wherein R1 and R2 are independently selected from the group consisting of H, OH, F, CH₃, and OCH₃

~~7.6.~~ The compound of claim 1 wherein R5, R6 and R7 are independently selected from the group consisting of H, CH₃, and OCH₃.

~~8.7.~~ The compound of claim 1 wherein one or more of the hydrogen atoms of the compound are replaced by deuterium.

~~9.8.~~ The compound of claim 1, wherein the compound is selected from the group consisting of 2-[2-(5,8-dimethyl-[1,2,4]triazolo[1,5-a]pyrazin-2-yl)-ethyl]-5H-imidazo[2,1-a]isoindole; 2-[2-(5,8-dimethyl-[1,2,4]triazolo[1,5-a]pyridin-2-yl)-ethyl]-5H-imidazo[2,1-a]isoindole; 2-[2-(5-methyl-[1,2,4]triazolo[1,5-a]pyridin-2-yl)-ethyl]-5H-imidazo[2,1-a]isoindole; 2-[2-(5,8-dimethyl-[1,2,4]triazolo[1,5-a]pyrazin-2-yl)-vinyl]-5H-imidazo[2,1-a]isoindole; {2-[2-(5H-Imidazo[2,1-a]isoindol-2-yl)-ethyl]-5-methyl-[1,2,4]triazolo[1,5-a]pyrazin-8-yl)-methanol; and 2-[2-(5,8-dimethyl-[1,2,4]triazolo[1,5-a]pyrazin-2-yl)-ethyl]-7-fluoro-5H-imidazo[2,1-a]isoindole, 2-[2-(5,8-Dimethyl-[1,2,4]triazolo[1,5-a]pyrazin-2-yl)-ethyl]-5,6-dihydro-imidazo[2,1-a]isoquinoline and pharmaceutically acceptable acid addition salts thereof.

~~10.9.~~ A compound of any one of claims 1 to ~~9-8~~ as a medicament.

~~11.10.~~ Use of a compound of any one of claims 1 to ~~9-8~~ alone or in combination with one or more neuroleptic agents such as sertindole, olanzapine, risperidone, quetiapine, aripiprazole, haloperidol, clozapine, ziprasidone and osanetant, in

the manufacture of a medicament for treatment of a neurodegenerative or psychiatric disorder, wherein the neurodegenerative disorder is Huntington's disease, and the psychiatric disorder is selected from the group consisting of schizophrenia, for example of the paranoid, disorganized, catatonic, undifferentiated, or residual type; schizophreniform disorder; schizoaffective disorder, for example of the delusional type or the depressive type; delusional disorder; bipolar disorder, for example bipolar I disorder, bipolar II disorder, and cyclothymic disorder.

11. The use of claim 10, wherein the neuroleptic agent is selected from the group consisting of the group consisting of sertindole, olanzapine, risperidone, quetiapine, aripiprazole, haloperidol, clozapine, ziprasidone and osanetant.

12. The use of claim 10, wherein the neurodegenerative disorder is Huntington's disease, and the psychiatric disorder is selected from the group consisting of schizophrenia, schizophreniform disorder; schizoaffective disorder; delusional disorder; bipolar disorder, and cyclothymic disorder.

12. ~~Use of a compound of any one of claims 1 to 9, for the preparation of a medicament for the treatment of a neurodegenerative or psychiatric disorder, wherein the neurodegenerative disorder is Huntingtons disease, and the psychiatric disorder is selected from the group consisting of schizophrenia, for example of the paranoid, disorganized, catatonic, undifferentiated, or residual type; schizophreniform disorder; schizoaffective disorder, for example of the delusional type or the depressive type; delusional disorder; bipolar disorder, for example bipolar I disorder, bipolar II disorder.~~

13. A pharmaceutical composition comprising a therapeutically effective amount of a compound of any one of claims 1 to 89, and one or more pharmaceutically acceptable carriers, diluents and excipients.