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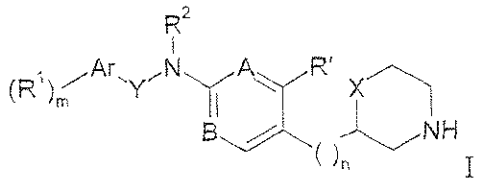
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Objects of the embodiments disclosed herein~~present invention~~ are new compounds of formula I and their pharmaceutically acceptable salts, their use for the manufacture of medicaments for the treatment of diseases related to the biological function of the trace amine associated receptors, their manufacture and medicaments based on a compound in accordance with the invention in the control or prevention of illnesses such as depression, anxiety disorders, bipolar disorder, attention deficit hyperactivity disorder, stress-related disorders, psychotic disorders such as schizophrenia, neurological diseases such as Parkinson's disease, neurodegenerative disorders such as Alzheimer's disease, epilepsy, migraine, substance abuse and metabolic disorders such as eating disorders, diabetes, diabetic complications, obesity, dyslipidemia, disorders of energy

consumption and assimilation, disorders and malfunction of body temperature homeostasis, disorders of sleep and circadian rhythm, and cardiovascular disorders.

The preferred indications using the compounds of the present disclosure~~invention~~ are depression, psychosis, Parkinson's disease, diabetes, anxiety and attention deficit hyperactivity disorder (ADHD).

In a first aspect, there is provided compounds of formula



I

wherein

R^1 is hydrogen, C_{1-7}-alkyl, halogen, C_{1-7}-alkyl substituted by halogen, C_{1-7}-alkoxy, C_{1-7}-alkoxy substituted by halogen, cyano, nitro, C_{3-6}-cycloalkyl, -CH_2-C_{3-6}-cycloalkyl, -O-CH_2-C_{3-6}-cycloalkyl, -O-$(CH_2)_2$-O- C_{1-7}-alkyl, $S(O)_2CH_3$, SF_5, -C(O)NH- C_{1-7}-alkyl, phenyl, -O-pyrimidinyl, optionally substituted by C_{1-7}-alkoxy substituted by halogen, or is benzyl, oxetanyl or furanyl;

m is 1 or 2;

Ar is aryl or heteroaryl, selected from the group consisting of phenyl, naphthyl, pyrimidinyl, pyridinyl, benzothiazolyl, quinolinyl, quinazolinyl, benzo[d][1.3]dioxolyl, 5,6,7,8-tetrahydro-quinazolinyl, pyrazolyl, pyrazinyl, pyridazinyl, or 1,3,4-oxadiazolyl;

Y is a bond, -CH_2-, -CH_2CH_2-, -$CH(CF_3)$- or -$CH(CH_3)$-;

R^2 is hydrogen or C_{1-7}-alkyl;

A is CR or N; and R is hydrogen, cyano, halogen or C_{1-7}-alkyl;

R' is hydrogen or halogen; with the proviso that when R' is halogen, then A is CH;

B is CH or N;

n is 0, 1 or 2;

X is a bond, -CH_2- or –O-;

-( )- is the group -(CH_2)-;

or pharmaceutical active acid addition salts thereof, with the exception of the following compounds

(2,6-dichlorobenzyl)-(4-morpholin-2-yl-phenyl)-amine

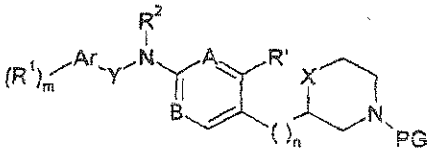
N-(4-((2S)-morpholine-2-yl)phenyl)pyridine-2-amine

N-methyl-N-(4-((2S)-morpholine-2-yl)phenyl)pyridine-2-amine and

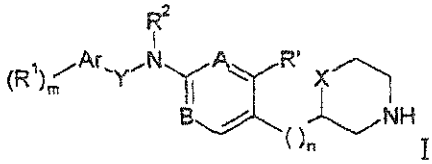
(2,6-dichloro-phenyl)-(4-morpholin-2-ylphenyl)-amine

In a second aspect, there is provided a process for the manufacture of a compound of formula I as defined above, which process comprises

a) cleaving off the N-protecting group from compounds of formula



to a compound of formula



I

PG is a N-protecting group selected from –C(O)O-tert-butyl, and

if desired, converting the compounds obtained into pharmaceutically acceptable acid addition salts.

In a third aspect, there is provided a pharmaceutical composition comprising a compound as defined above and a pharmaceutical acceptable carrier and/or adjuvant.

In a fourth aspect, there is provided a pharmaceutical composition comprising a compound as defined above and a pharmaceutical acceptable carrier and/or adjuvant for use in the treatment of depression, anxiety disorders, bipolar disorder, attention deficit hyperactivity disorder (ADHD), stress-related disorders, psychotic disorders, schizophrenia, neurological diseases, Parkinson's disease, neurodegenerative disorders, Alzheimer's disease, epilepsy, migraine, hypertension, substance abuse, metabolic disorders, eating disorders, diabetes, diabetic complications, obesity, dyslipidemia, disorders of energy consumption and assimilation, disorders and malfunction of body temperature homeostasis, disorders of sleep and circadian rhythm, and cardiovascular disorders.

In a fifth aspect, there is provided compounds as defined above for use as therapeutic active substances.

In a sixth aspect, there is provided compounds as defined above for use as therapeutic active substances in the treatment of depression, anxiety disorders, bipolar disorder, attention deficit hyperactivity disorder (ADHD), stress-related disorders, psychotic disorders, schizophrenia, neurological diseases, Parkinson's disease, neurodegenerative disorders, Alzheimer's disease, epilepsy, migraine, substance abuse, metabolic disorders, eating disorders, diabetes, diabetic complications, obesity, dyslipidemia, disorders of energy consumption and assimilation, disorders and malfunction of body temperature homeostasis, disorders of sleep and circadian rhythm, and cardiovascular disorders.

In a seventh aspect, there is provided compounds as defined above for use as therapeutic active substances in the treatment of CNS diseases selected from depression, anxiety disorders, bipolar disorder, attention deficit hyperactivity disorder (ADHD), stress-related disorders, psychotic disorders, schizophrenia, neurological diseases, Parkinson's disease, neurodegenerative disorders, Alzheimer's disease, epilepsy, substance abuse or migraine.

In an eighth aspect, there is provided compounds as defined above for use as therapeutic active substances in the treatment of metabolic disorders selected from eating disorders, diabetes, diabetic complications or obesity.

In a ninth aspect, there is provided the use of a compound as defined above for the preparation of medicaments for the therapeutic and/or prophylactic treatment of depression, anxiety disorders, bipolar disorder, attention deficit hyperactivity disorder (ADHD), stress-related disorders, psychotic disorders, schizophrenia, neurological diseases, Parkinson's disease, neurodegenerative disorders, Alzheimer's disease, epilepsy, migraine, substance abuse, metabolic disorders, eating disorders, diabetes, diabetic complications, obesity, dyslipidemia, disorders of energy consumption and assimilation, disorders and malfunction of body temperature homeostasis, disorders of sleep and circadian rhythm, and cardiovascular disorders.

As used herein, the term "lower alkyl" denotes a saturated straight- or branched-chain group containing from 1 to 7 carbon atoms, for example, methyl, ethyl, propyl, isopropyl, n-butyl, i-butyl, 2-butyl, t-butyl and the like. Preferred alkyl groups are groups with 1 - 4 carbon atoms.

As used herein, the term "lower alkoxy" denotes a group wherein the alkyl residue is as defined above and which is attached via an oxygen atom.

As used herein, the term "lower alkyl substituted by halogen" denotes an alkyl group as defined above, wherein at least one hydrogen atom is replaced by halogen, for example CF_3, CHF_2, CH_2F, CH_2CF_3, $CH_2CH_2CF_3$, $CH_2CF_2CF_3$ and the like.

As used herein, the term "lower alkoxy substituted by halogen" denotes a group wherein the alkyl residue is as defined above and which is attached via an oxygen atom and wherein at least on hydrogen atom is replaced by halogen.

The term "halogen" denotes chlorine, iodine, fluorine and bromine.

The term "cycloalkyl" is an alkylene ring, containing from 3 to 6 carbon ring atoms.

The term "aryl", relates to an aromatic carbon ring such as to the phenyl or naphthyl ring, preferably the phenyl ring.

The term "heteroaryl" refers to an aromatic 5 to 6 membered monocyclic ring or 9 to 10 membered bicyclic ring which can comprise 1, 2 or 3 heteroatoms selected from nitrogen, oxygen and/or sulphur, such as pyrimidinyl, pyridinyl, benzothiazolyl, quinolinyl, quinazolinyl, benzo[d][1.3]dioxolyl, 5,6,7,8-tetrahydro-quinazolinyl, pyrazolyl, pyrazinyl, pyridazinyl, or 1,3,4-oxadiazolyl;

The term "pharmaceutically acceptable acid addition salts" embraces salts with inorganic and organic acids, such as hydrochloric acid, nitric acid, sulfuric acid, phosphoric acid, citric acid, formic acid, fumaric acid, maleic acid, acetic acid, succinic acid, tartaric acid, methane-sulfonic acid, p-toluenesulfonic acid and the like.

One embodiment of the present invention are compounds of formula