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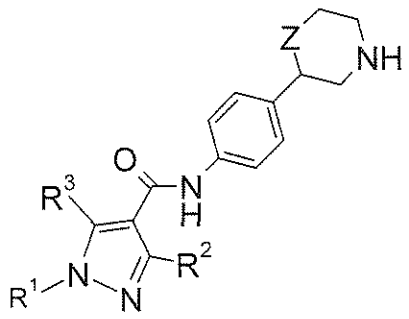
Objects of the ~~present invention~~embodiments disclosed herein are new compounds of formula I and their pharmaceutically acceptable salts, their use for the manufacture of medicaments for the treatment of diseases related to the biological function of the trace amine associated receptors, their manufacture 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 ~~invention~~ disclosure are depression, psychosis, Parkinson's disease, anxiety and attention deficit hyperactivity disorder (ADHD) and diabetes.

In a first aspect, there is provided a compound of formula



I

wherein

R^1 is phenyl, optionally substituted by halogen, lower alkyl, lower cycloalkyl, lower alkoxy, cyano, lower alkyl substituted by halogen, lower alkyl substituted by hydroxy, lower alkoxy substituted by halogen or lower alkoxy substituted by hydroxy; or is pyridine-2, 3 or 4-yl, optionally substituted by halogen, lower alkyl, lower cycloalkyl, cyano, lower alkyl substituted by halogen, lower alkyl substituted by hydroxyl, lower alkoxy, lower alkoxy substituted by halogen, or lower alkoxy substituted by hydroxyl; or is pyrimidin-2, 4 or 5-yl, optionally substituted by halogen, lower alkyl, lower cycloalkyl, lower alkyl substituted by hydroxy or lower alkyl substituted by halogen, or is pyrazin-2-yl, optionally substituted by halogen, lower alkyl, lower cycloalkyl, lower alkyl substituted by halogen, lower alkyl substituted by hydroxy or cyano, or is 2,2-difluorobenzo[d][1,3]dioxol-5-yl, or is thiazolyl, optionally substituted by lower alkyl substituted by halogen;

R^2 is hydrogen or lower alkyl;

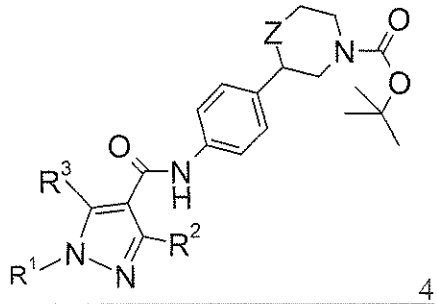
R^3 is hydrogen, amino or lower alkyl;

Z is a bond, $-CH_2-$ or –O-;

or a pharmaceutically suitable acid addition salt thereof.

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

cleaving off the protecting group of compounds of formula



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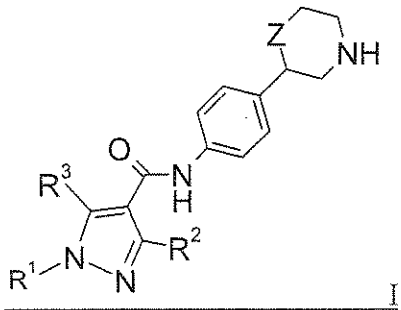
to form a compound of formula I



I

and, if desired, converting the compounds obtained into pharmaceutically acceptable acid addition salts, wherein the substituents are as described herein.

In a third aspect, there is provided a compound as defined herein, when manufactured by a process as defined herein.

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

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

In a sixth aspect, there is provided compounds as defined herein 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 seventh aspect, there is provided use of a compound as defined herein 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, 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.

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 cycloalkyl" denotes a saturated carbon ring, containing from 3 to 6 carbon atoms, for example cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl.

As used herein, the term "lower alkyl substituted by halogen" denotes a lower alkyl group as defined above, wherein at least one hydrogen atom is replaced by halogen.

As used herein, the term "lower alkyl substituted by hydroxy" denotes a lower alkyl group as defined above, wherein at least one hydrogen atom is replaced by hydroxy.

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.

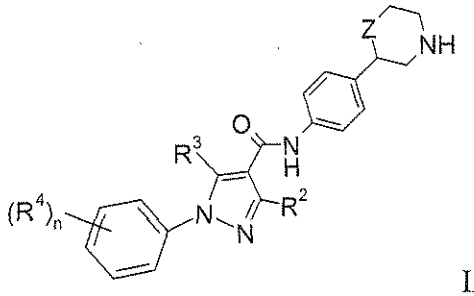
The term "halogen" denotes chlorine, iodine, fluorine and bromine.

As used herein, the term "lower alkoxy substituted by halogen" denotes an alkoxy group as defined above and wherein at least one hydrogen atom is replaced by halogen.

As used herein, the term "lower alkoxy substituted by hydroxy" denotes an alkoxy group as defined above and wherein at least one hydrogen atom is replaced by hydroxy.

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 invention are compounds of formula IA



IA