plays (Bourreau *et al*, 2009)[14]. Research to date indicates that a genetic predisposition may be involved, but also environmental factors have to be taken into consideration (Bourgeron, 2009)[15]. There is at present no efficient biological/ pharmaceutical treatment to ASD.

Detailed description of the invention

In one aspect, there is provided use of a mGlu2/3 negative allosteric modulator in the manufacture of a medicament for the treatment, prevention and/or delay of progression of central nervous system conditions caused by neurodevelopmental defects which result in excessive mGlu2/3 receptor activation in the central nervous system and/or that can be corrected by negative allosteric modulation of mGlu2/3 receptor activation.

In another aspect, there is provided a pharmaceutical composition comprising a mGlu2/3 negative allosteric modulator as defined herein in a pharmaceutically acceptable form for the treatment, prevention and/or delay of progression of an Autistic Spectrum Disorder.

In another aspect, there is provided a mGlu2/3 negative allosteric modulator as defined herein for the treatment, prevention and/or delay of progression of an Autistic Spectrum Disorder.

In another aspect, there is provided a mGlu2/3 negative allosteric modulator as defined herein for the preparation of medicaments for the treatment, prevention and/or delay of progression of an Autistic Spectrum Disorder.

In another aspect, there is provided the use of a mGlu2/3 negative allosteric modulator as defined herein for the preparation of medicaments for the treatment, prevention and/or delay of progression of an Autistic Spectrum Disorder.

The terms "Autistic Spectrum" and "Autistic Spectrum Disorders" summarize conditions classified as pervasive developmental disorders, which include but are not limited to autism, Asperger syndrome, pervasive developmental disorder not otherwise specified (PDD-NOS), childhood disintegrative disorder, Rett syndrome and Fragile X, in particular autism. These disorders are typically characterized by social deficits, communication difficulties, stereotyped or repetitive behaviors and interests, and cognitive delays.

The following definitions of the general terms used in the present description apply irrespectively of whether the terms in question appear alone or in combination with other groups.

Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of the invention, suitable methods and materials are described below.

The nomenclature used in this Application is based on IUPAC systematic nomenclature, unless indicated otherwise.

The term "modulator" denotes a molecule that interacts with a target receptor. The interactions include e.g. agonistic, antagonistic, or inverse agonistic activity.

The term "allosteric modulator" denotes a compound that binds to a receptor at a site distinct from the agonist binding site (an "allosteric site"). It induces a conformational change in the receptor, which alters the activation of the receptor when in presence of the endogenous ligand or agonist. "Positive allosteric modulators" increase the affinity and/or the activity of agonists, whilst "negative allosteric modulators" (NAM) decrease the activity and/ or the affinity (and hence decrease the activity) of agonists for a receptor.

The term "C_{1-6}-alkyl", alone or in combination with other groups, stands for a hydrocarbon radical which may be linear or branched, with single or multiple branching, wherein the alkyl group in general comprises 1 to 6 carbon atoms, for example, methyl (Me), ethyl (Et), propyl, isopropyl (i-propyl), n-butyl, i-butyl (isobutyl), 2-butyl (sec-butyl), t-butyl (tert-butyl), isopentyl, 2-ethyl-propyl, 1,2-dimethyl-propyl and the like. Particular "C_{1-6}-alkyl" groups have 1 to 4 carbon atoms. A specific group is CH_3.

Claims

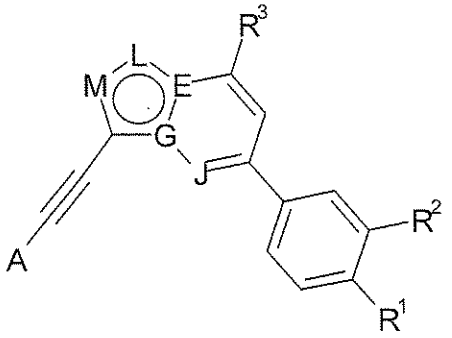
1. Use of a mGlu2/3 negative allosteric modulator in the manufacture of a medicament for the treatment, prevention and/or delay of progression of central nervous system conditions caused by neurodevelopmental defects which result in excessive mGlu2/3 receptor activation in the central nervous system and/or that can be corrected by negative allosteric modulation of mGlu2/3 receptor activation.

2. Use according to claim 1, prevention and/or delay of progression of central nervous system conditions caused by neurodevelopmental defects which result in excessive mGlu2/3 inhibition in the cortex and hippocampus.

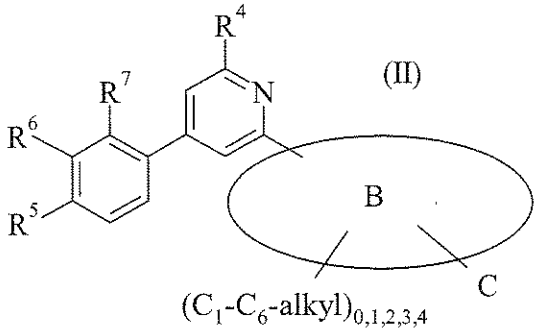
3. Use according to any one of claims 1-2, wherein said central nervous system condition is a disorder of the Autistic Spectrum.

4. Use according to any one of claims 1-3, wherein said central nervous system condition is autism.

5. Use according to any one of claims 1-4, wherein the mGlu2/3 negative allosteric modulator is selected from a compound of formula (I) and formula (II).



(I)



(II)

wherein

either E and J are N, G is C and one of L or M is N and the other is CH;

or L and G are N, E is C, and J and M are CH;

or J, G and L are N, E is C and M is CH;

or E and L are N, J and M are CH and G is C;

A is selected from the group consisting of phenyl, pyridin-2-yl, pyridin-3-yl, pyridine-4-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyridazin-2-yl, pyridazin-3-yl, thiazol-2-yl, thiazol-5-yl, and thiophen-2-yl which are optionally substituted by one to four R^a;

B is selected from the group consisting of imidazolyl, [1,2,4]oxadiazolyl], pyrrolyl, 1H-pyrazolyl, pyridinyl, [1,2,4]triazolyl, thiazolyl, pyrimidinyl and thiophenyl, each of which is optionally substituted by C_{1-6}-alkyl;