D 392 1 4'82

THE SYNTHESIS AND PHARMACOLOGY OF γ-AMINOBUTYRIC ACID RECEPTOR MIMETICS

by

Jane Anne Margaret McDonald BSc

A thesis submitted to
The Council for National
Academic Awards in
partial fulfilment of
the requirements for the
degree of Doctor of
Philosophy

Department of Chemistry
Sir John Cass School of Science
and Technology
City of London Polytechnic

Department of Chemistry
Glaxo Group Research Limited
Ware Division
Hertfordshire

August 1981

THE SYNTHESIS AND PHARMACOLOGY OF γ-AMINOBUTYRIC ACID RECEPTOR MIMETICS

by

Jane Anne Margaret McDonald BSc

A thesis submitted to
The Council for National
Academic Awards in
partial fulfilment of
the requirements for the
degree of Doctor of
Philosophy

Department of Chemistry
Sir John Cass School of Science
and Technology
City of London Polytechnic

Department of Chemistry
Glaxo Group Research Limited
Ware Division
Hertfordshire

August 1981

Memorandum

Except where acknowledgement is made by reference, this thesis and experiments described were the unaided work of the author. The work was carried out under the supervision of Dr. J. Collins in the Department of Chemistry at the City of London Polytechnic in collaboration with Dr. D. Reynolds in the Department of Chemistry, Glaxo Group Research Limited, during the period October 1978 - July 1981 and was supported by a studentship from the Science Research Council.

Statement of Advanced Studies Undertaken

Attendance at a course of Neuropharmacology lectures for postgraduates and an undergraduate Organic Mechanism course. Departmental lectures and seminars were also attended.

Acknowledgements

I should like to thank Dr. J. Collins for his continual advice and encouragement throughout this course of study and to extend thanks to all other members of the Department of Chemistry, in particular to my colleagues for the convivial and humorous laboratory atmosphere.

I wish to thank Dr. D. Reynolds for his enthusiasm and help and Dr. N. Bowery, Department of Pharmacology, St. Thomas' Hospital Medical School, for his invaluable discussions. My thanks are also due to Mrs. E. Ellis for her excellent typing of this thesis.

Finally, I am indepted to my parents for their great support throughout my academic career and to my husband for his encouragement and endurance.

Publications

The following publication has appeared on the work or derived from the work presented in this thesis.

Collins J.F., McDonald J.A. and Newton R.F. (1980) Characterization of the binding of ^{3}H-Isoguvacine, a γ-Aminobutyric acid agonist, to brain synaptosomal membranes. Brain Res. Bull. 5/2, 141-144.

Abbreviations

GABA	γ-Aminobutyric Acid
CNS	central nervous system
BZ	benzodiazepine
P4S	piperidine-4-sulphonic acid
BABA	β-amino-n-butyric acid
THIP	4,5,6,7-tetrahydroisoxazolo-[5,4-c]pyridin-3-ol
APSA	3-aminopropane sulphonic acid
NaCl	sodium chloride
Ci	curie
cpm	counts per minute
sem	standard error of the mean
bp	boiling point
mpt	melting point
cc	cubic centimetre
min	minute
ml	millilitre
mol	mole
mwt	molecular weight
^{1}H nmr	proton nuclear magnetic resonance
glc	gas-liquid chromatography
hplc	high pressure liquid chromatography
psi	pounds per square inch
dec	decompose
tlc	thin layer chromatography
EPSP	excitatory post-synaptic potential
Å	Angstrom
Fig	figure

Abstract

The Synthesis and Pharmacology of γ-Aminobutyric Acid Receptor Mimetics

Jane Anne McDonald

γ-aminobutyric acid (GABA) has been shown to be an important inhibitory neurotransmitter in mammalian central nervous system (CNS). GABA receptors have been previously characterized in mammalian brain using ^{3}H-GABA itself, a potent GABA agonist, ^{3}H-muscimol, and the GABA antagonist, ^{3}H-bicuculline methiodide. Recently, it has been suggested that 1,2,3,6 Tetrahydropyridine-4-carboxylic acid (Isoguvacine) is a potent GABA receptor agonist. It has also been reported to act as a mixed agonist/antagonist at the GABA-benzodiazepine receptor complex.

The binding of ^{3}H-Isoguvacine to frozen-thawed, rat brain synaptosomal membranes has been investigated and found to be saturable, specific and stereospecific. The pharmacology of this ^{3}H-Isoguvacine binding site was seen to be consistent with an interaction at the post-synaptic GABA receptor site. The effects of detergent treatment on this binding site were investigated and indicated a single site, both in control and in Triton X-100 treated membranes.

A series of benzodiazepines were shown to displace ^{3}H-Isoguvacine bound to frozen-thawed rat synaptosomal membranes. This effect was shown to be temperature-dependent and could be blocked by picrotoxinin (10^{-4} M). Pentobarbitone was also seen to displace ^{3}H-Isoguvacine binding, albeit at high IC_{50} values; an effect antagonized by picrotoxinin. Neither the benzodiazepines nor pentobarbitone had any effect on ^{3}H-GABA binding in frozen-thawed membranes.

In contrast, using fresh rat synaptosomal membranes, neither the benzodiazepines nor pentobarbitone had any effect on ^{3}H-Isoguvacine binding, whereas both were shown to potentiate ^{3}H-GABA binding.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

Gray E.G. and Whittaker V.P. (1962) The isolation of nerve endings from brain: an electron-microscopic study of cell fragments derived by homogenization and centrifugation. J. Anat. 96/1, 79-88

Greenlee D.V., Olsen R.W. (1979) Solubilization of gamma-aminobutyric acid receptor protein from mammalian brain. Biochem. Biophys. Res. Commun. 88, 380-387.

Greenlee D.V., Van Ness P.C. and Olsen R.W. (1978a) Endogenous inhibitor of GABA binding in mammalian brain. Life Sci. 22, 1653-1662.

Greenlee D.V., Van Ness P.C. and Olsen R.W. (1978b) Gamma-aminobutyric acid binding in mammalian brain: receptor-like specificity of sodium-independent sites. J. Neurochem. 31, 933-938.

Guidotti A., Toffano G. and Costa E. (1978) An endogenous protein modulates the affinity of GABA and benzodiazepine receptors in rat brain. Nature (Lond.) 275, 553-555.

Haber B., Kuriyama K. and Roberts E. (1970) L-glutamic acid decarboxylase: A new type in glial cells and human brain gliomas. Science 168, 598-599.

Haefely W.E. (1978a) Central actions of benzodiazepines: general introduction. Br. J. Psychiatry 133, 231-238.

Haefely W.E. (1978b) Behavioural and neuropharmacological aspects of drugs used in anxiety and related states. In: Psychopharmacology: a Generation in Progress. ed. Lipton M., Di Mascio A., Killam K., pp.1359-1374. New York, Raven Press.

Haefely H., Kulscar A., Möhler H., Pieri L., Polc P., Schaffner R. (1975) Possible involvement of GABA in the central actions of benzodiazepines. In: Advances in Biochemical Psychopharmacology. Vol.12 ed. Costa E., Greengard P., pp.131-151. New York, Raven Press.

Hale W. and Britton E. (1919) The preparation of potassium phthalimide J. Am. Chem. Soc., 41, 841-842.

Hall P.V., Smith J.E., Campbell R.L., Felton D.L. and Aprison M.H. (1976) Neurochemical correlates of spasticity. Life Sci., 18, 1467-1472.

Ham N.S. (1974) Nmr studies of solution conformations of physiologically active amino acids. In: Molecular and Quantum Pharmacology ed. Bergmann E. and Pullman B., pp.256-263. Dordrecht-Holland. D. Reidel Publishing Company.

Hammerstad J.P. and Lytle C.R. (1976) Release of [^{3}H] GABA from rat cortical slices: neuronal vs. glial origin. J. Neurochem. 27, 399-403.

Hammett L.P. (1935) Some relations between reaction rates and equilibrium constants. Chem. Rev. 17, 125-136.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

Martin D.L. (1976) Carrier-mediated transport and removal of GABA from synaptic regions. In: GABA in Nervous System Function ed. Roberts E., Chase T.N. and Tower D.B., pp.347-386. New York, Raven Press.

Martin I.L. and Candy J.M. (1978) Facilitation of benzodiazepine binding by sodium chloride and GABA. Neuropharmac., 17, 993-998.

Martin-Smith M., Smail G.A., and Stenlake, J.B. (1967) The possible role of conformational isomerism in the biological actions of acetylcholine. J. Pharm. Pharmac. 19, 561-589.

Maurer R. (1979) The GABA agonist, THIP, a muscimol analogue, does not interfere with the benzodiazepine binding sites on rat's cortical membranes. Neurosci. Lett., 12, 65-68.

Maynert E.W. and Kaji H.K. (1962) On the relationship of brain γ-aminobutyric acid to convulsions. J. Pharmac. Exp. Ther., 137, 114-121.

McGreer P.L., McGreer E.G. and Fibiger H.C. (1973) Choline acetylase and glutamic acid decarboxylase in Huntington's chorea. Neurology, 23, 912-917.

McGreer E.G., McGreer P.L. and McLennan H. (1961) The inhibitory action of 3-hydroxytryramine, gamma-aminobutyric acid and some other compounds towards the crayfish stretch receptor neuron. J. Neurochem. 7, 36-49.

McGreer P.L., McGreer E.G., Wada J.A. and Jung E. (1971) Effects of globus pallidus lesions and Parkinson's disease on brain glutamic acid decarboxylase. Brain Res., 32, 425.

McKay A.F., Garmaise D.L., Gaudry R., Baker H.A., Paris G.Y., Kay R.W., Just G.E. and Schwartz R. (1959) The chemical and bacteriostatic properties of isothiocyanates and their derivatives. J. Am. Chem. Soc., 81, 4328-4335.

McManus J.M. and Herbst R.M. (1957) Tetrazole analogs of amino acids. J. Org. Chem., 24, 1643-1649.

Meldrum B.S. (1975) Epilepsy and γ-aminobutyric acid-mediated inhibition. Int. Rev. Neurobiol. 17, 1-36.

Meldrum B.S. (1979) Convulsant drugs, anticonvulsants and GABA-mediated neuronal inhibition. In: GABA-Neurotransmitters - Pharmacochemical, Biochemical and Pharmacological Aspects. ed. Krogsgaard-Larsen P., Scheel-Krüger J. and Kofod H., pp.390-405. Alfred Benzon Symposium, Copenhagen, Munksgaard.

Meldrum B. and Horton R.W. (1978) Blockade of epileptic responses in the photosensitive baboon, Papio papio, by two irreversible inhibitors of GABA-transaminase, gamma-acetylenic GABA (4 amino-hex-5-ynoic acid) and gamma-vinyl GABA(4-amino-hex-5-enoic acid). Psychopharmac. 59, 47-50.

Mihina J.S. and Herbst (1950) The reaction of nitriles with hydrazoic acid: synthesis of monosubstituted tetrazoles. J. Org. Chem., 15, 1082-1092.

Miller L.P. and Martin D.L. (1973) An artifact in the radiochemical assay of brain mitochondrial glutamate decarboxylase. Life Sci., 13, 1023-1032.

Minchin M.C.W. and Iversen L.L. (1974) Release of [^{3}H] Gamma-aminobutyric acid from glial cells in rat dorsal root ganglia. J. Neurochem. 23, 533-540.

Mitchell P.R. and Martin I.L. (1978) Is GABA release modulated by presynaptic receptors? Nature (Lond.) 274, 904-906.

Miyata Y. and Otsuka M. (1975) Quantitative histochemistry of γ-aminobutyric acid in cat spinal cord with special reference to presynaptic inhibition. J. Neurochem., 25, 239-244.

Möhler H. Trends in Pharmac. Sci. (in press).

Möhler H. and Okada T. (1977a) Benzodiazepine receptor: demonstration in the central nervous system. Science 198, 849-851.

Möhler H. and Okada T. (1977b) GABA receptor binding with [^{3}H]-(+) bicuculline methiodide in rat CNS. Nature (Lond.) 267, 65-67.

Möhler H. and Okada T. (1978a) GABA receptors in rat brain: demonstration of an antagonist binding site. In: Amino Acids as Chemical Transmitters. ed. Fonnum F., pp.493-498. New York, Plenum Press.

Möhler H. and Okada T. (1978b) Properties of GABA receptor binding with [^{3}H](+)bicuculline methiodide in rat cerebellum. Molec. Pharmac. 14, 256-265.

Möhler H., Polc P., Cumin R., Pieri L. and Kettler R. (1979) Nicotinamide is a brain constituent with benzodiazepine-like actions. Nature (Lond.) 278, 563-565.

Monod J., Wyman J. and Changeux J.P. (1965) On the nature of allosteric transitions: A plausible model. J. Mol. Biol., 12; 88;118.

Montzka T.A., Matiskella J.D. and Partyka R.A. (1974) 2,2,2-Trichloroethyl chloroformate: a general reagent for demethylation of tertiary methylamines. Tetrahedron Lett., 14, 1325-1327.

Morin A.M. and Wasterlain C.G. (1980) The binding of ^{3}H-Isoguvacine to mouse brain synaptic membranes. Life Sci., 26, 1239-1245.

Nicholson S.H., Suckling C.J., Iversen L.L. (1979) GABA analogues: conformational analysis of effects on [^{3}H]-GABA binding to postsynaptic receptors in human cerebellum. J. Neurochem., 32, 249-252.

Nicoll R.A. (1978) Pentobarbital: differential postsynaptic actions on sympathetic ganglion cells. Science 199, 451-452.

Nishi S., Minota S. and Karczmar A.G. (1974) Primary afferent neurones: the ionic mechanism of GABA-mediated depolarization. Neuropharmac., 13, 215-219.

Nistri A. and Constanti A. (1979) Pharmacological characterization of different types of GABA and glutamate receptors in vertebrates and invertebrates. Prog. Neurobiol. 13, 117-235.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.