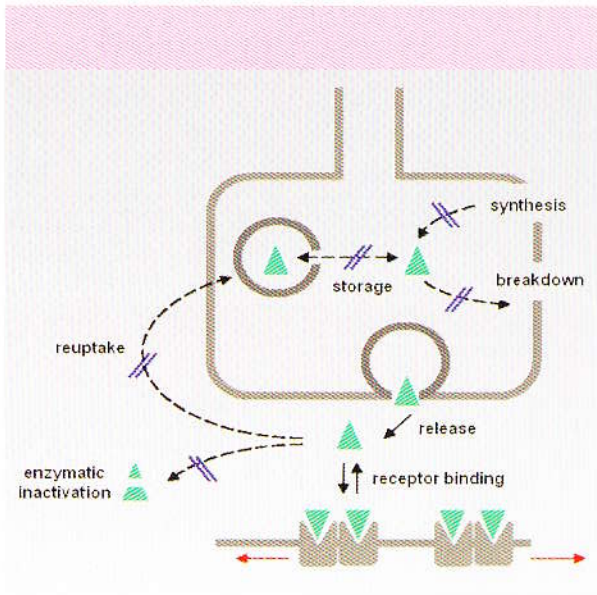


## ■ In vitro models for CNS research

Communication between neurons mainly involves three steps:

- neurotransmitter release
- binding of the neurotransmitters to their specific receptors and
- termination of this chemical impulse by reuptake of the neurotransmitter into the neuron or enzymatic inactivation.



## ■ Other techniques

- In addition, we offer assays for several enzymes involved in neurotransmitter synthesis and breakdown, including acetylcholinesterase, GABA transaminase, monoamine oxidases and others.
- Our specialized HPLC laboratory allows the determination of amino acids, catecholamines, drugs including metabolites and several other substances.
- Do not hesitate to contact us. Our expert team will find the solution for your neuropharmacological problem.

For further information please contact us:

**IBAM**

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**IBAM**

*The specialist  
in neuropharmacology*

■ In vitro models  
for CNS  
research

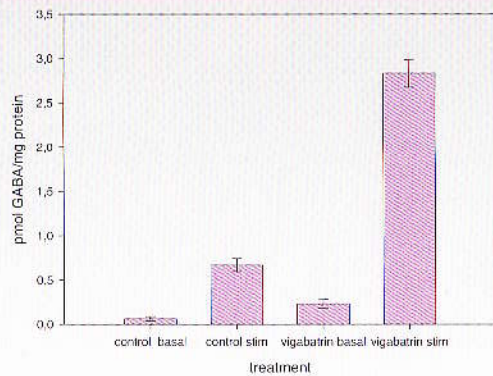


We are specialized for the investigation of these processes:

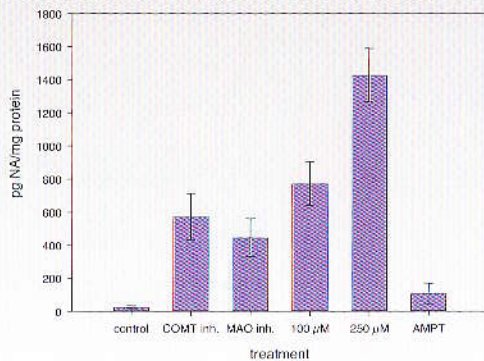
## Neurotransmitter release

We provide several models to study drug-induced modulation of neurotransmitter release (amino acids, catecholamines and their metabolites, biogenic amines).

Effect of the GABA-transaminase inhibitor vigabatrin on the extracellular GABA concentration



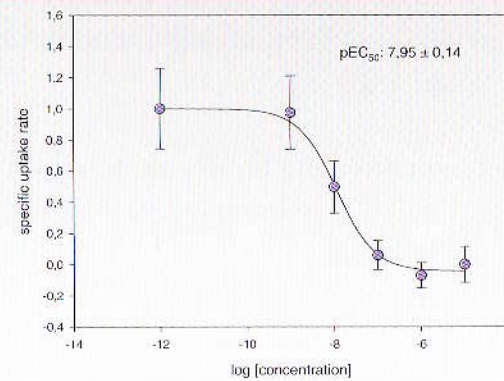
Stimulation of noradrenaline release from rat brain slices by Thomapyrin®  
Comparison with COMT- and MAO inhibition



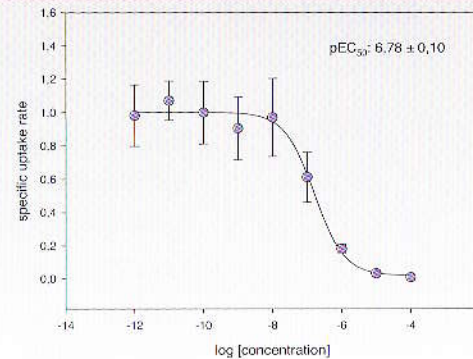
## Reuptake of neurotransmitters

Experiments into the reuptake of neurotransmitters can be performed with brain tissue, synaptosomes and cell lines.

Inhibition of serotonin uptake in JAR cells by fluvoxamine



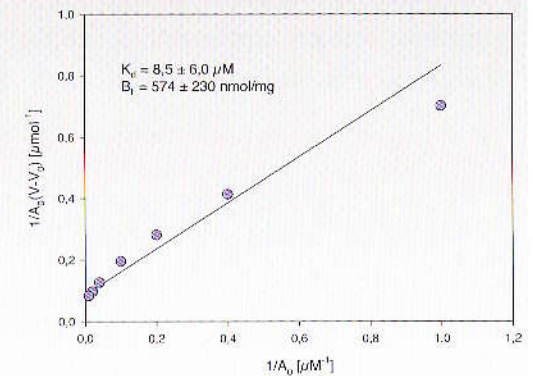
Effect of a drug under development on neuronal GABA uptake



## Binding experiments

We perform experiments into binding of substances (drugs, plant extracts, etc.) to specific binding sites at receptors, other proteins and biopolymers e.g. melanin.

Binding of the antimalarial drug chloroquine to melanin examined by frontal affinity chromatography



Binding of a Passiflora extract to recombinant human MT<sub>1</sub> receptors

