

Lecture 11: Monoamines

Haupt

Monoamine Readings in Squire 4th edition

Monoamine synthesis, release and degradation, Chapter 6 p. 120-126

Monoamine receptors, Chapter 8, p. 183-184

Sympathetic Nervous System, Chapter 34 p. 729-733

Dopamine in motivation, Chapter 41, p. 874-879

Parkinson's Disease, Chapter 30 p. 657

MPTP story, Chapter 30 p. 667

Monoamine Readings in Kandel 5th Edition

Monoamine synthesis, release, Chapter 13, p. 291-294

Parkinsons , Chapter 43, p. 991 - 995.

Central Dopamine Reward Pathways, Chapter 49 p.1103-1112

Antipsychotic Drugs, Chapter 60 p 1397-1399

Antidepressant Drugs, Chapter 61 p.1410-1416

Table 60-3 Five Major Types of Known Postsynaptic Dopamine Receptors

	D ₁	D ₂	D ₃	D ₄	D ₅
Molecular structure	Seven membrane-spanning regions	Seven membrane-spanning regions	Seven membrane-spanning regions	Seven membrane-spanning regions	Seven membrane-spanning regions
Effect on cyclic AMP	Increases	Decreases	Decreases	Decreases	Increases
Agonists	SKF 38393	Bromocriptine	7-OH-DPAT	?	SKF 38393
Antagonists	SCH 23390 Phenothiazines Thioxanthenes Butyrophenones	Sulpiride Phenothiazines Thioxanthenes Butyrophenones Clozapine	UH232		SCH 23390
			Clozapine	Clozapine	

AMP = adenosine monophosphate.

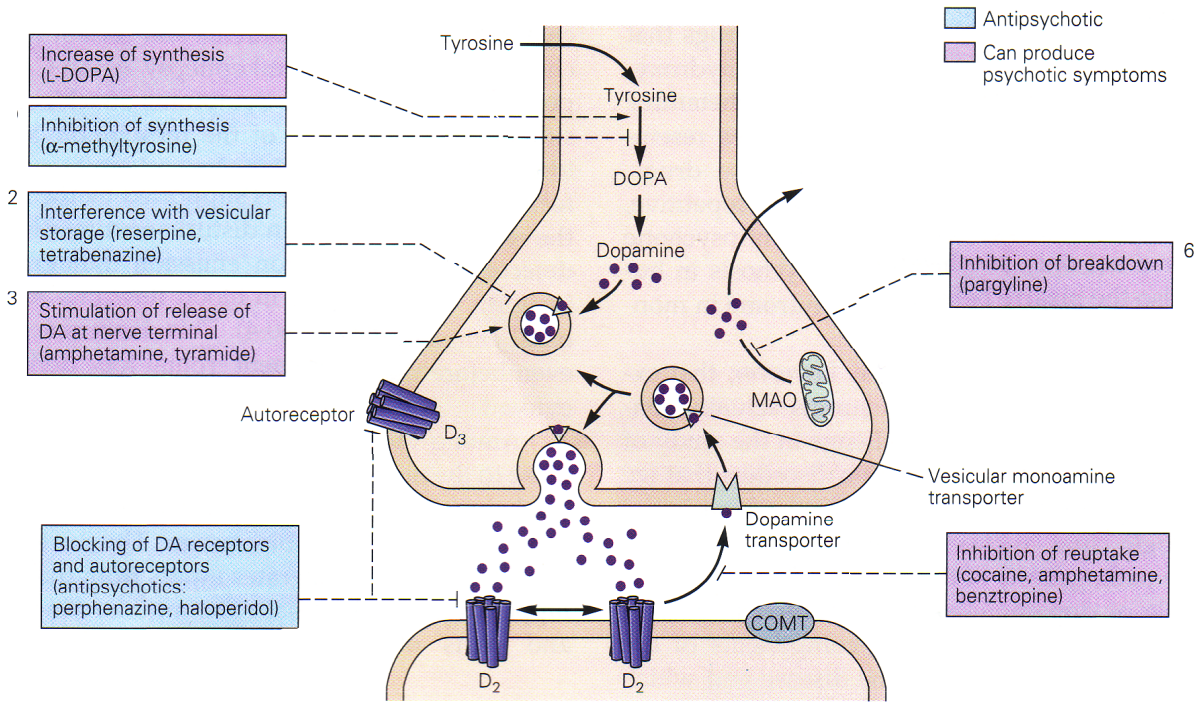
SKF 38393 = Smith Kline French compound no. 38393.

7-OH-DPAT = 7-hydroxy-dipropylaminotetralin.

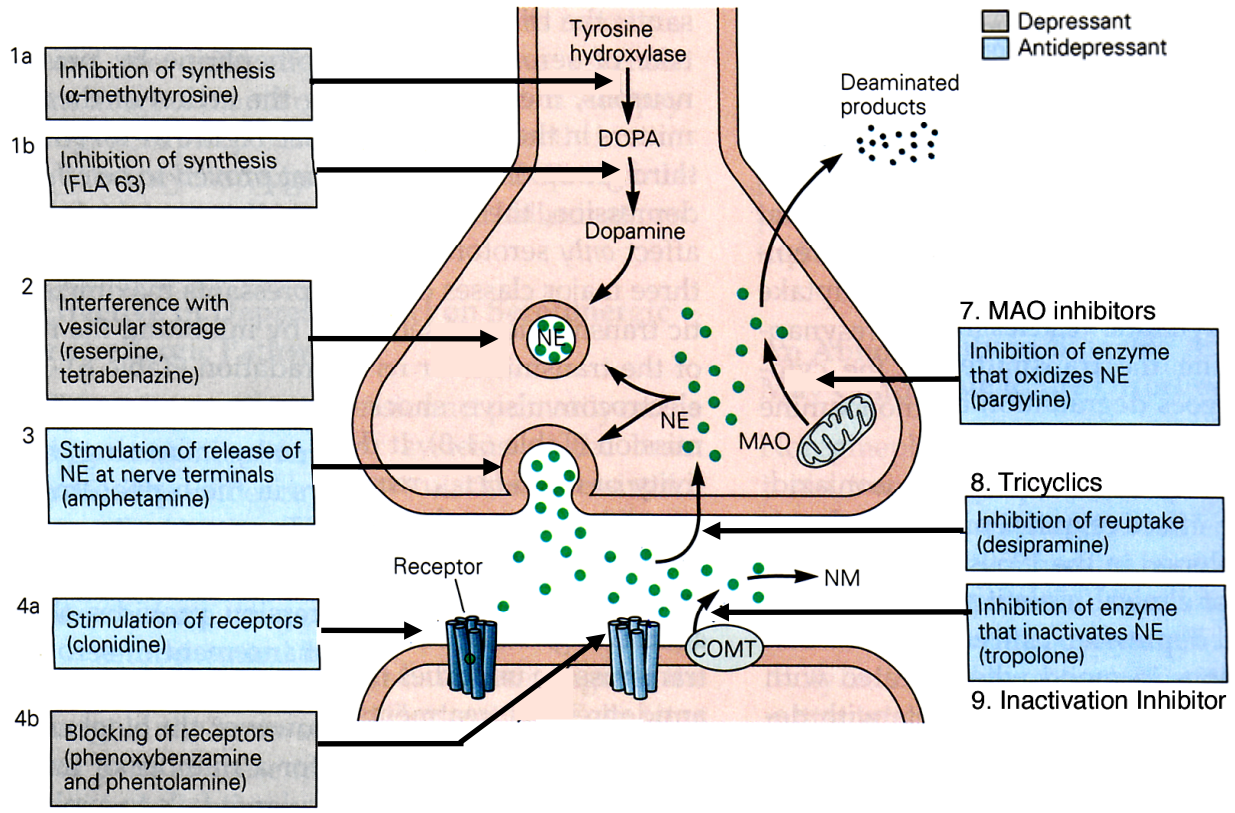
SCH 23390 = Scherring A. G. compound no. 23390.

UH232 = U. Hacksell compound no. 232.

Dopamine Synapse



Norepi Synapse



Serotonin Synapse

