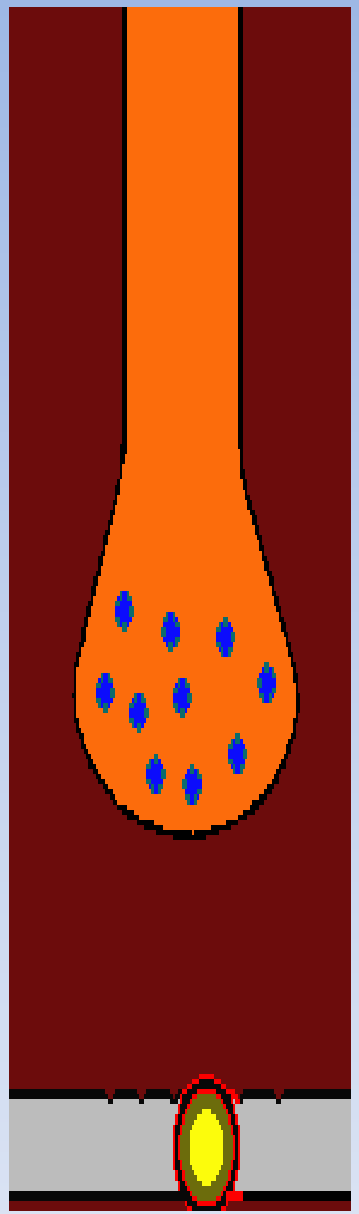
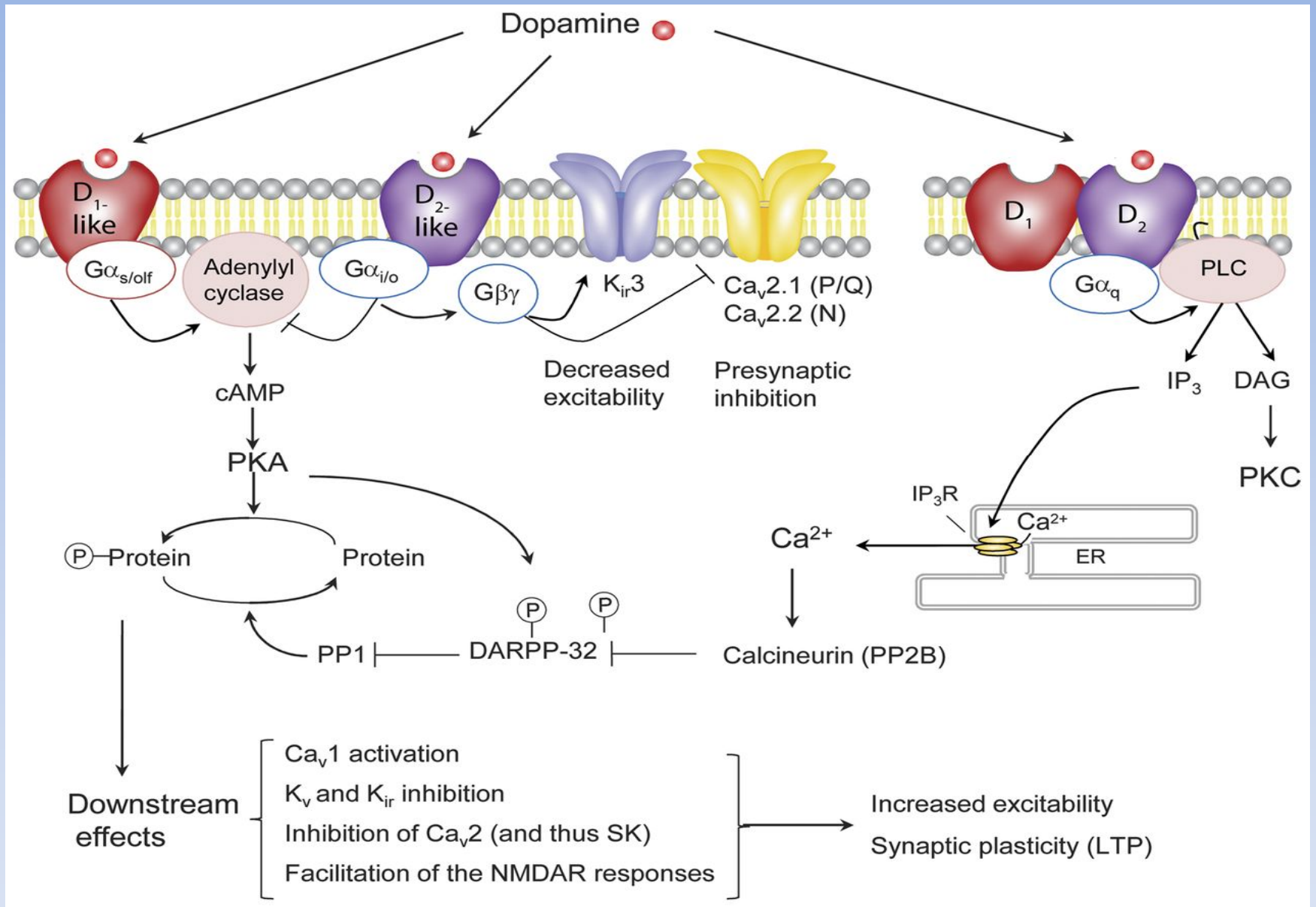
dopamine receptors



Prof.Dr.Nuray Arı, 2018



http://flipper.diff.org/app/pathways/info/7837

Functions of Dopamine receptors

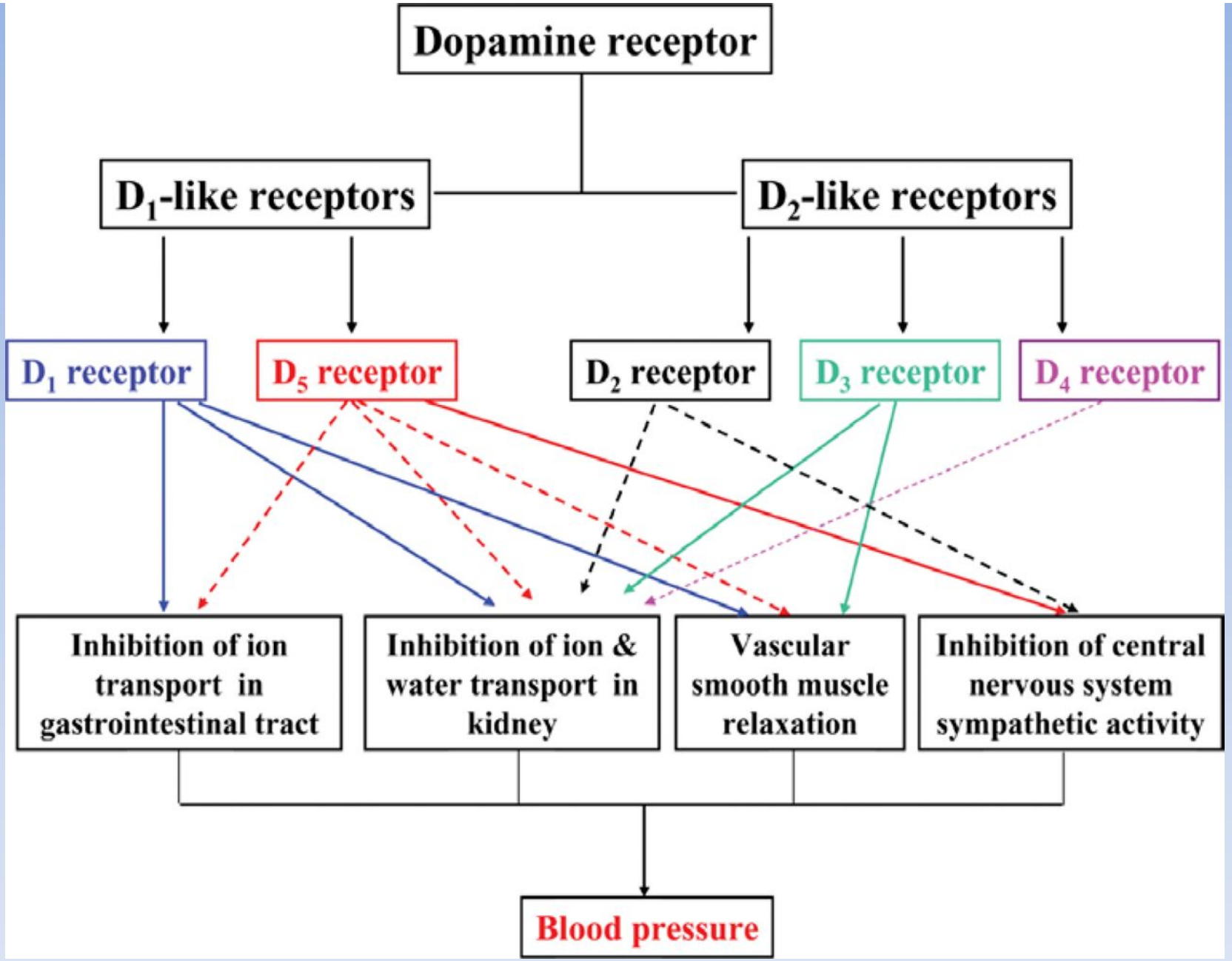
Functions	Type of receptors involved
Locomotion	D1, D2, D3
Learning and memory	D1, D2
Cognition	D3, D4, D5
Attention, impulse control, decision making, motor learning, sleep, reproductive behaviors and the regulation of food intake	D1, D2, D3, D4, D5
hormonal regulation, such as the regulation of prolactin secretion; renin secretion; aldosterone secretion	D2 D1 D2
regulation of renal function; blood pressure regulation; vasodilation; and gastrointestinal motility	D1, D2, D4

https://www.slideshare.net/PALLAVIRANE3/dopaminegic-receptors

TYPES and FUNCTION

Family	Receptor	Gene	Type	Mechanism
D1-like	D_1	*DRD1*	G_s-coupled.	Increase intracellular levels of cAMP by activating adenylate cyclase.
	D_5	*DRD5*		
D2-like	D_2	*DRD2*	G_i-coupled.	Decrease intracellular levels of cAMP by inhibiting adenylate cyclase.
	D_3	*DRD3*		
	D_4	*DRD4*		
TAAR	TAAR1	*TAAR1*	G_s-coupled. G_q-coupled.	Increase intracellular levels of cAMP and intracellular calcium concentration.

https://www.slideshare.net/AmbadasMane2/dopamine-72507519



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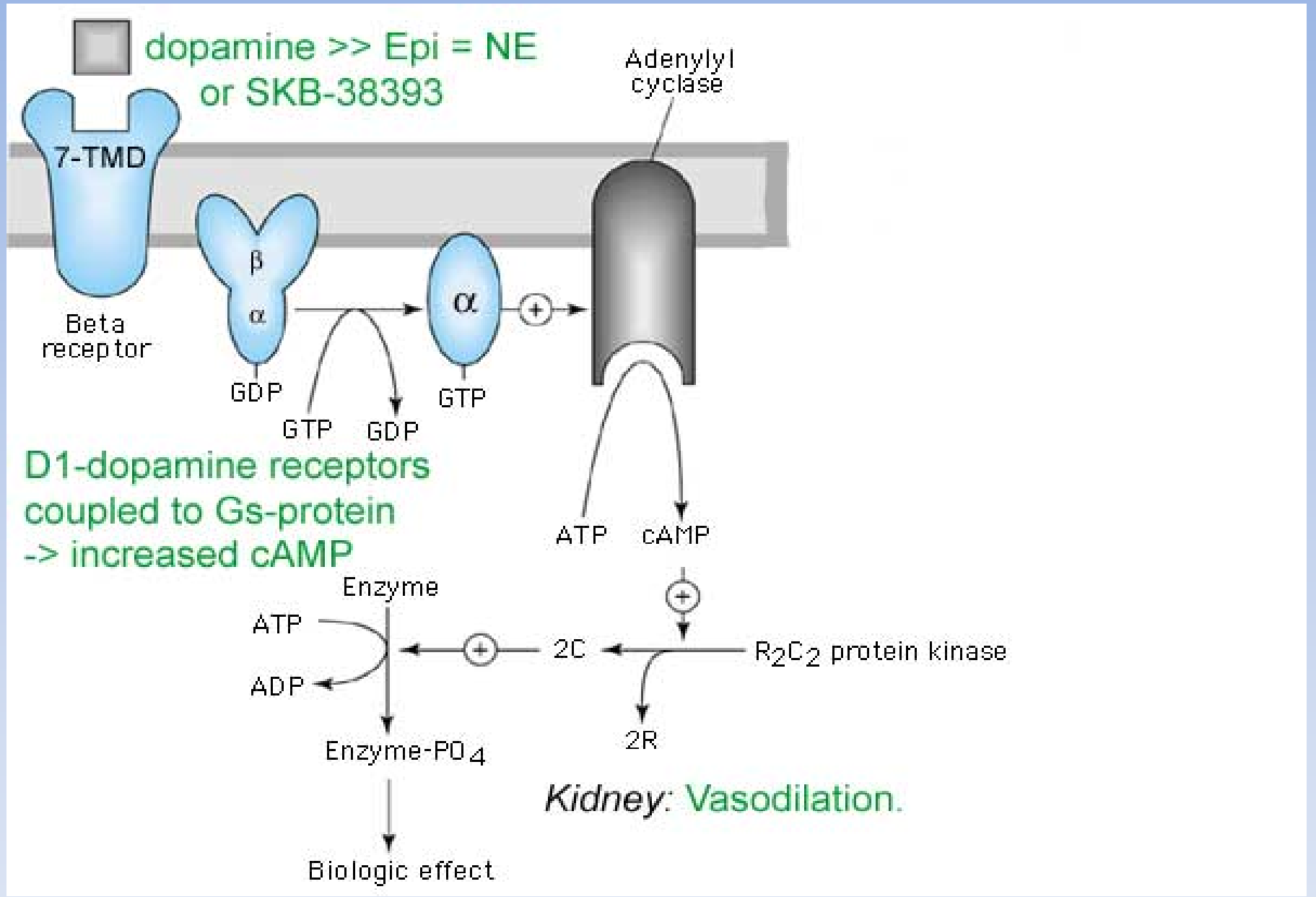
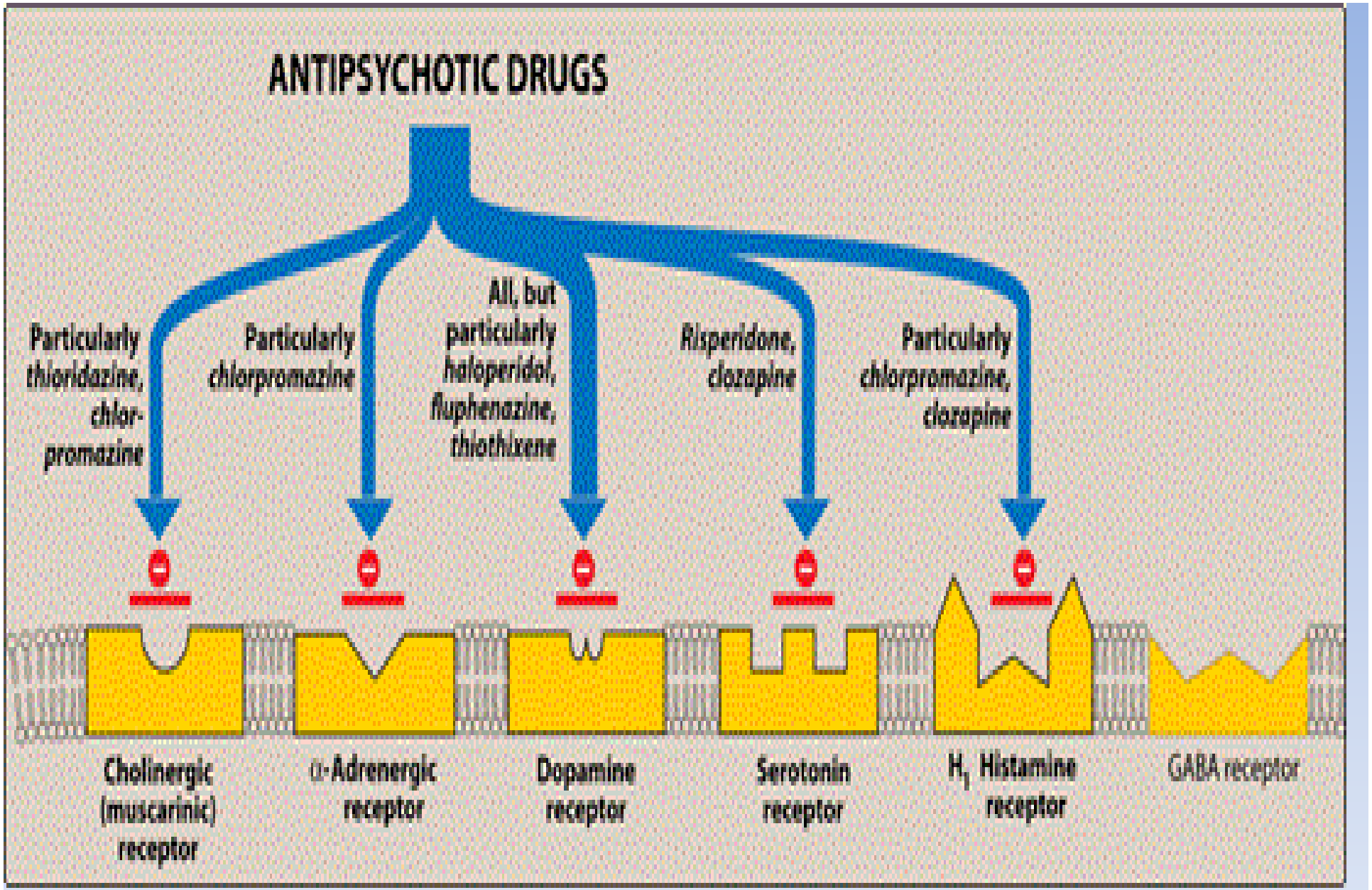


http://www-hsc.usc.edu/~bolger/ced/autonomic/D1-Dopamine-Gs.html



https://healtheappointments.com/chapter-13-antipsychotic-drugs-essays/

FIRST-GENERATION ANTIPSYCHOTIC (low potency)
Chlorpromazine THORAZINE
Prochlorperazine COMPAZINE
Thioridazine MELLARIL
FIRST-GENERATION ANTIPSYCHOTIC (high potency)
Fluphenazine PROLIXIN
Haloperidol HALDOL
Pimozide ORAP
Thiothixene NAVANE
SECOND GENERATION ANTIPSYCHOTIC
Aripiprazole ABILIFY
Asenapine SAPHRIS
Clozapine CLOZARIL
Iloperidone FANAPT
Lurasidone LATUDA
Olanzapine ZYPREXA
Quetiapine SEROQUEL
Paliperidone INVEGA
Risperidone RISPERDAL
Ziprasidone GEODON

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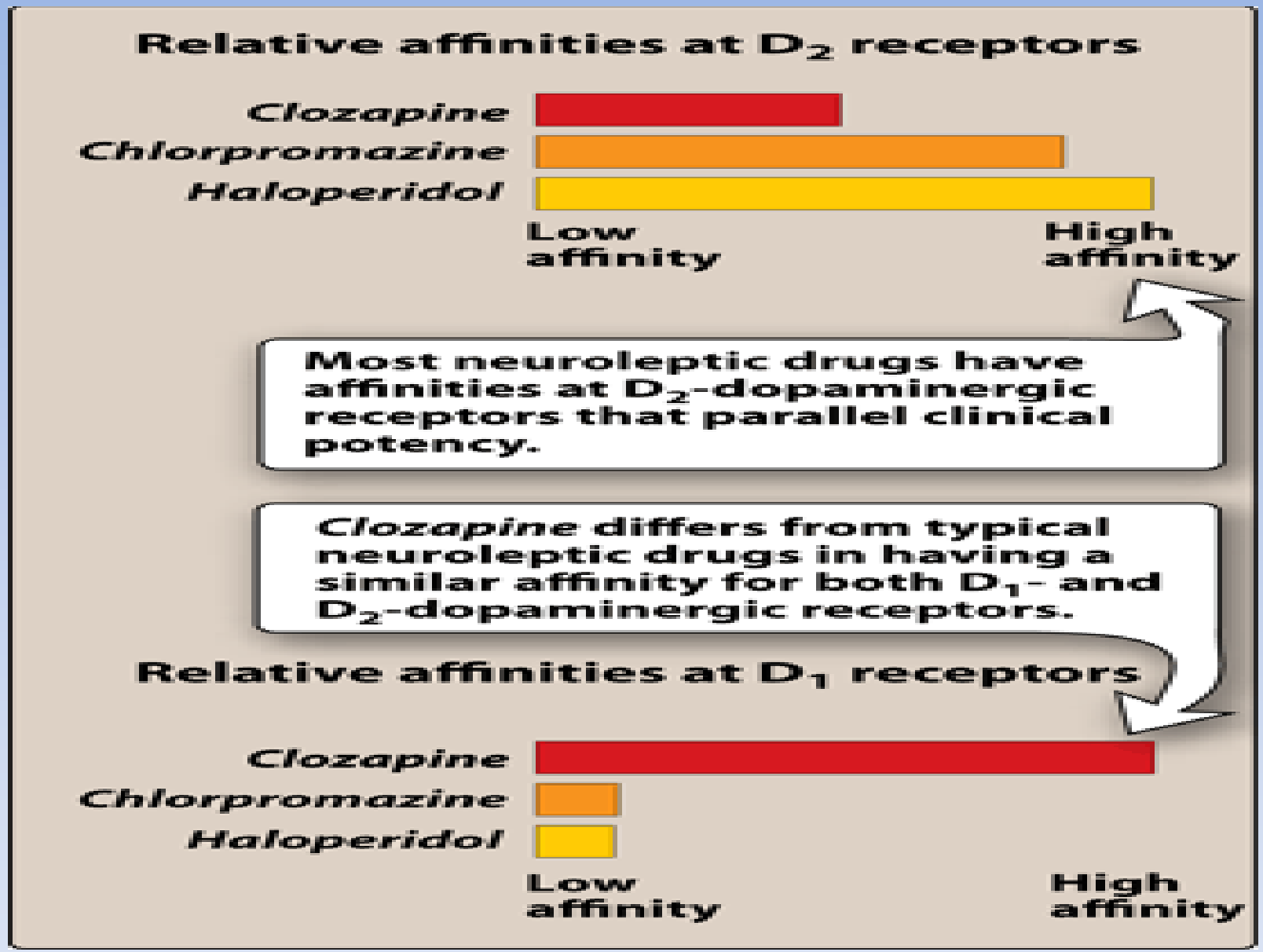

https://healtheappointments.com/chapter-13-antipsychotic-drugs-essays/

DRUG	THERAPEUTIC NOTES
First generation	
Chlorpromazine	Moderate to high potential for EPS; moderate to high potential for weight gain, orthostasis, sedation, anti-muscarinic effects.
Fluphenazine	Oral formulation has a high potential for EPS; low potential for weight gain, sedation, and orthostasis; low to moderate potential for anti-muscarinic effects; common use is in the LAI formulation administered every 2-3 weeks in patients with schizophrenia and a history of non-compliance with oral antipsychotic regimens.
Haloperidol	High potential for EPS; low potential for anti-adrenergic (orthostasis) or anti-muscarinic adverse events; low potential for weight gain or sedation; available in a LAI formulation administered every 4 weeks.
Second generation	
Aripiprazole	Low potential for EPS; low potential for weight gain; low potential for sedation and anti-muscarinic effects; also approved for the treatment of bipolar disorder; also approved for autistic disorder in children, and as an adjunctive treatment for major depression.
Asenapine	Low potential for EPS; low potential for weight gain; low to moderate potential for sedation; low potential for orthostasis; also approved for the treatment of bipolar disorder; available as a sublingual formulation.
Clozapine	Very low potential for EPS; risk for blood dyscrasias (eg. agranulocytosis = ~1%); risk for seizures; risk for myocarditis; high potential for the following: sialorrhea, weight gain, anti-muscarinic effects, orthostasis, and sedation.
Olanzapine	Low potential for EPS; moderate to high potential for weight gain and sedation; low potential for orthostasis; also approved for the treatment of bipolar disorder; available as a LAI formulation administered every 2-4 weeks.
Paliperidone	Low to moderate potential for EPS; low potential for weight gain; low potential for sedation; available as a LAI formulation administered every 4 weeks; also approved for use in schizo-affective disorder.
Quetiapine	Low potential for EPS; moderate potential for weight gain; moderate potential for orthostasis; moderate to high potential for sedation; also approved for the treatment of bipolar disorder and as an adjunctive treatment for major depression.
Risperidone	Low to moderate potential for EPS; low to moderate potential for weight gain; low to moderate potential for orthostasis; low to moderate potential for sedation; also approved for the treatment of bipolar disorder; also approved for autistic disorder in children; available as a LAI formulation administered every 2 weeks.
Ziprasidone	Low potential for extrapyramidal effects; contraindicated in patients with history of cardiac arrhythmias; minimal weight gain. Used in treatment of bipolar depression.

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