

TABLE 8.2 Some common enzymes used as drug targets.

Enzyme	Physiological Role	Drug Family	Representative	Effect
Cyclooxygenase (COX)	Producing bioactive compounds that mediate pain, fever, inflammation, and blood clotting	Non-steroidal anti-inflammatory drugs (NSAIDs)	Aspirin	Analgesic, antipyretic, anti-inflammatory, and blood thinning
Angiotensin converting enzyme (ACE)	Increase blood pressure	ACE inhibitors	Enalapril	Vasodilation → decreasing blood pressure
Serotonin transporter	Terminating serotonin signaling by reuptake	SSRIs	Fluoxetine (Prozac®)	Anti-depression, anxiolytic, increasing appetite, reducing obsessive-compulsive behavior
Monoamine oxidase (MAO)	Terminating catecholamine signaling by oxidative hydrolysis	MAO inhibitors	Pheniprazine	Anti-depression
Acetylcholinesterase (AChE)	Terminating ACh signaling by hydrolysis	Para-symphathomimetics	Rivastigmine	Symptomatic treatment of Alzheimer's disease
Bacterial ribosome	Protein synthesis	Tetracyclines	Tetracycline	Antibacterial action