Psychobiology

Name	Experimenters	Method	Results	Contribution/ theory
Morris water maze	Morris (1981)	– Hidden platform in water maze – Rat learns maze through visual cues in room	– Intact animal reaches platform immediately after learning – After hippocampal removal -> random swimming	Hippocampus and memory
Sea slugs	Kandel (n/a)	– NMDA dependent conditioned gill withdrawal in slugs o Tapping on siphon= no withdrawal o Tail shock= withdrawal – Paired siphon tap + tail shock= tap alone -> withdrawal	– Blocking glutamate signaling -> condition was not learnt	Glutamate and conditioned learning responses
Rat dopamine study	Olds & Milner (1953)	– Rats learnt to press lever to obtain electrical stimulation to part of brain	– Desire for stimulation so strong that animal may starve themselves – Later work= stimulation releases dopamine, blocking receptors can normalize behavior	Dopamine/ brain reward system
Chicken endocrine study	Berthold (1849)	– Castrated cockerels and returned single testis to body of some birds	– Returning testis reversed loss of sexual activity/ atrophy of comb – Even though testis was in abnormal body site and disconnected from neural innervation= release of hormone affect development	Hormones