



INTRODUCTION

Depression is a multicausal disorder that has a great impact on our society. In animals, unlike humans, depression is not defined, but antidepressants are used in ethology scope to treat dogs with behavioural problems.

OBJECTIVE

- To perform a bibliographic research about most prescribed antidepressant drugs in veterinary medicine, that are aimed to treat the most common behavioural disorders in dogs.

ANTIDEPRESSANTS IN VETERINARY MEDICINE

Monoamine oxidase inhibitors

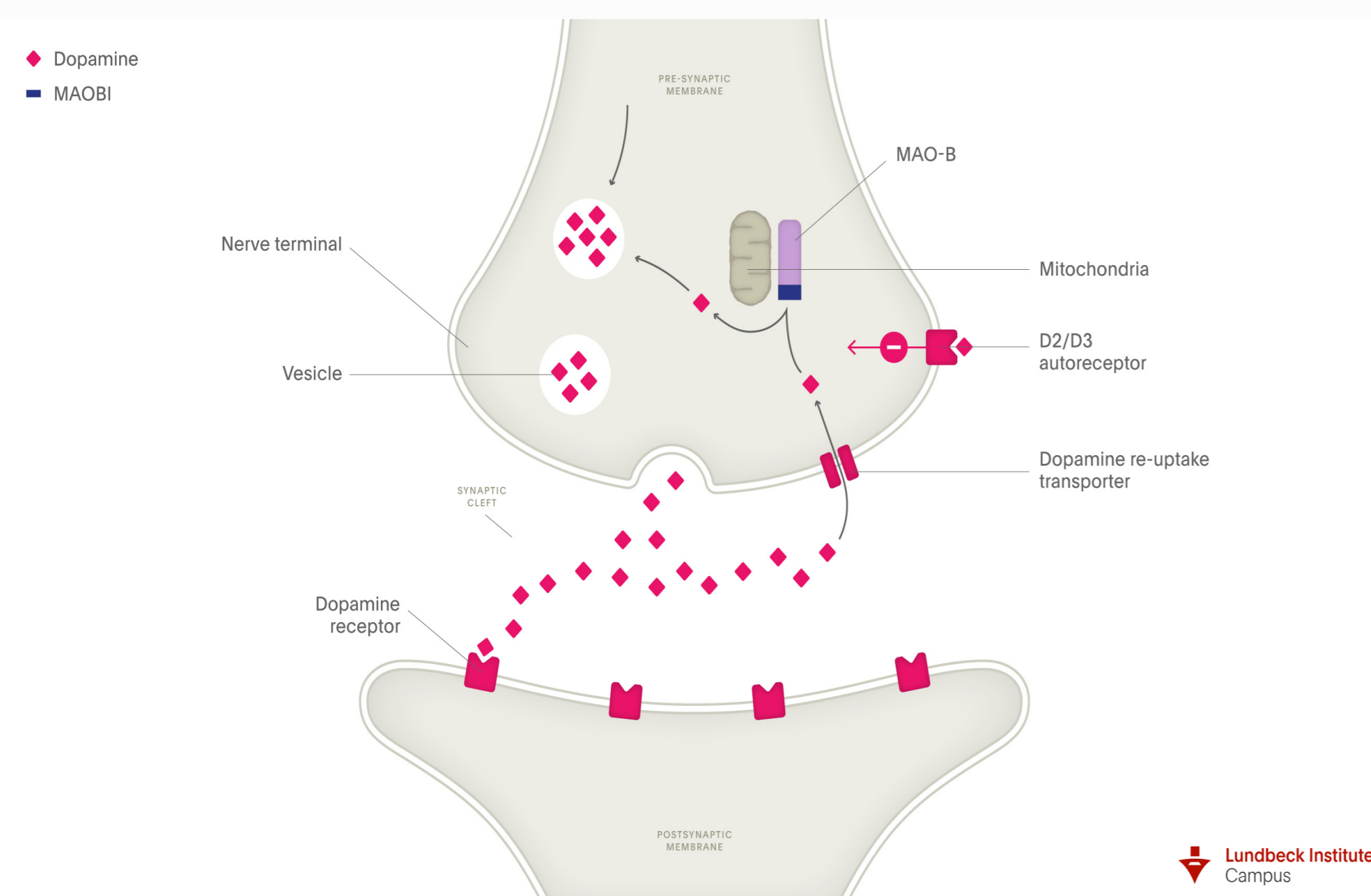


Figure 1: Mechanism of action of IMAO type B, (Lundbeck Institute Campus 2016)

Tricyclic antidepressants (TCA)

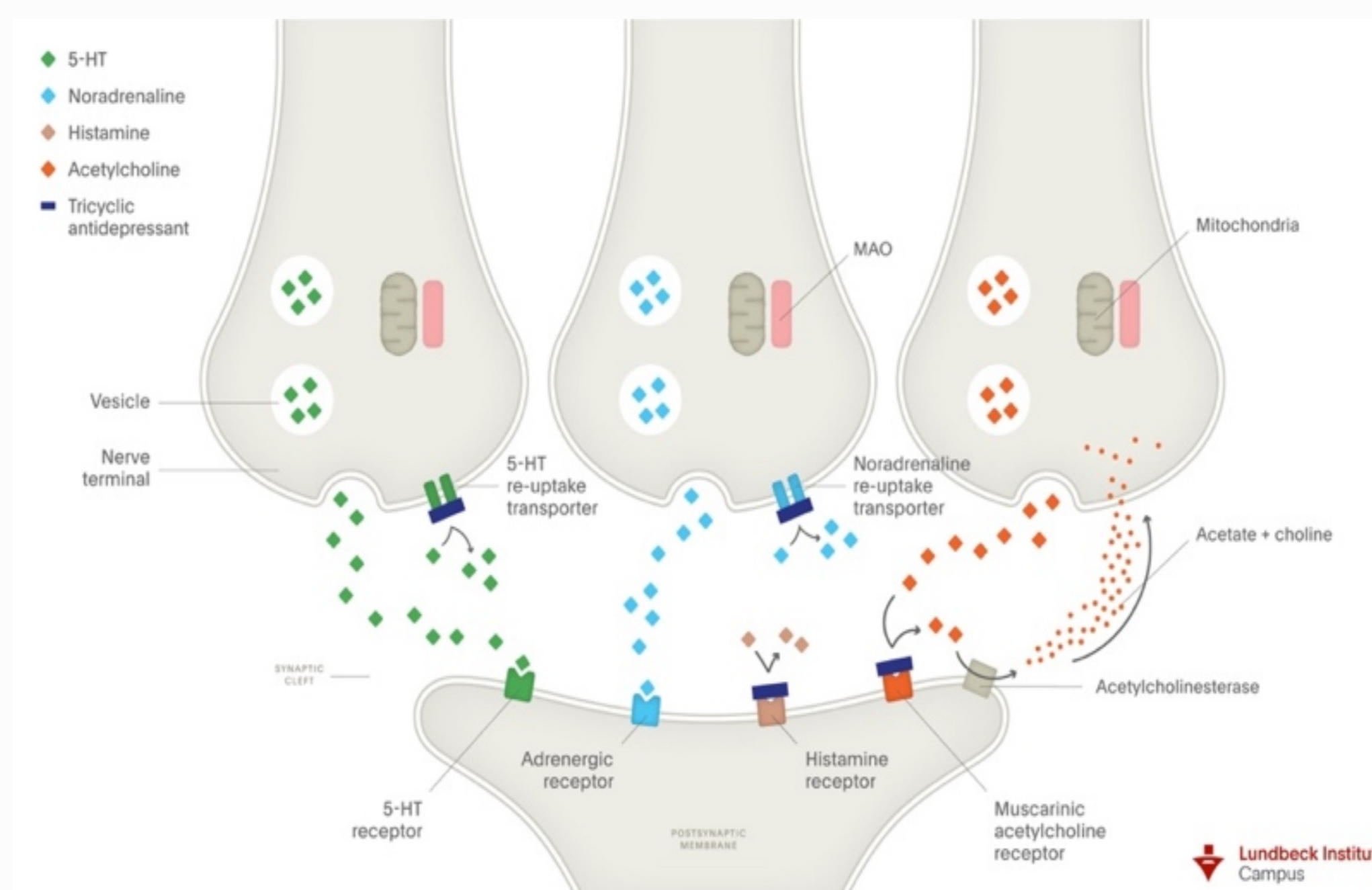


Figure 2: Mechanism of action of TCAs (Lundbeck Institute Campus 2016)

Selective serotonin reuptake inhibitors (SSRI)

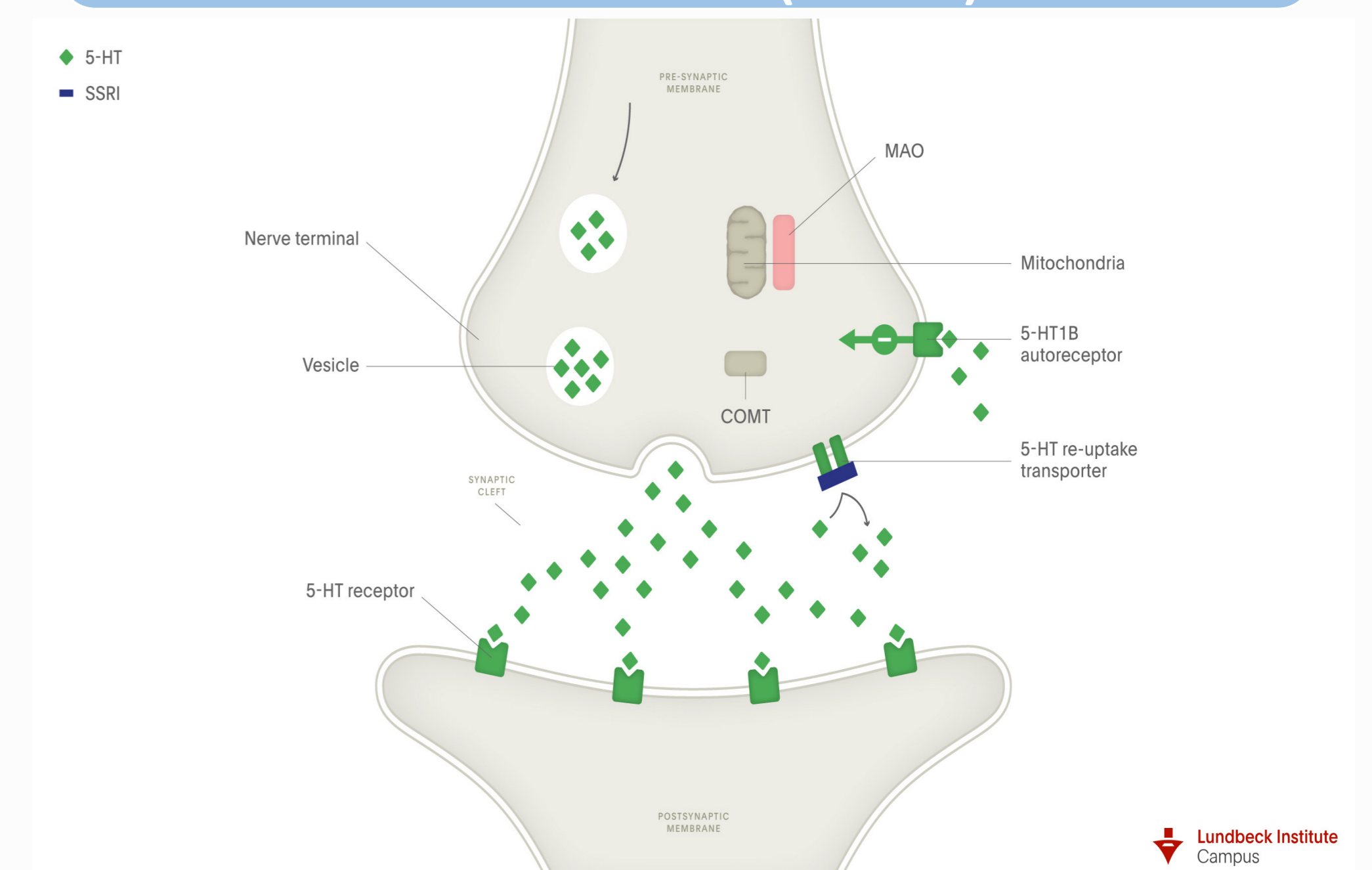


Figure 3: Mechanism of action of SSRI (Lundbeck Institute Campus 2016)

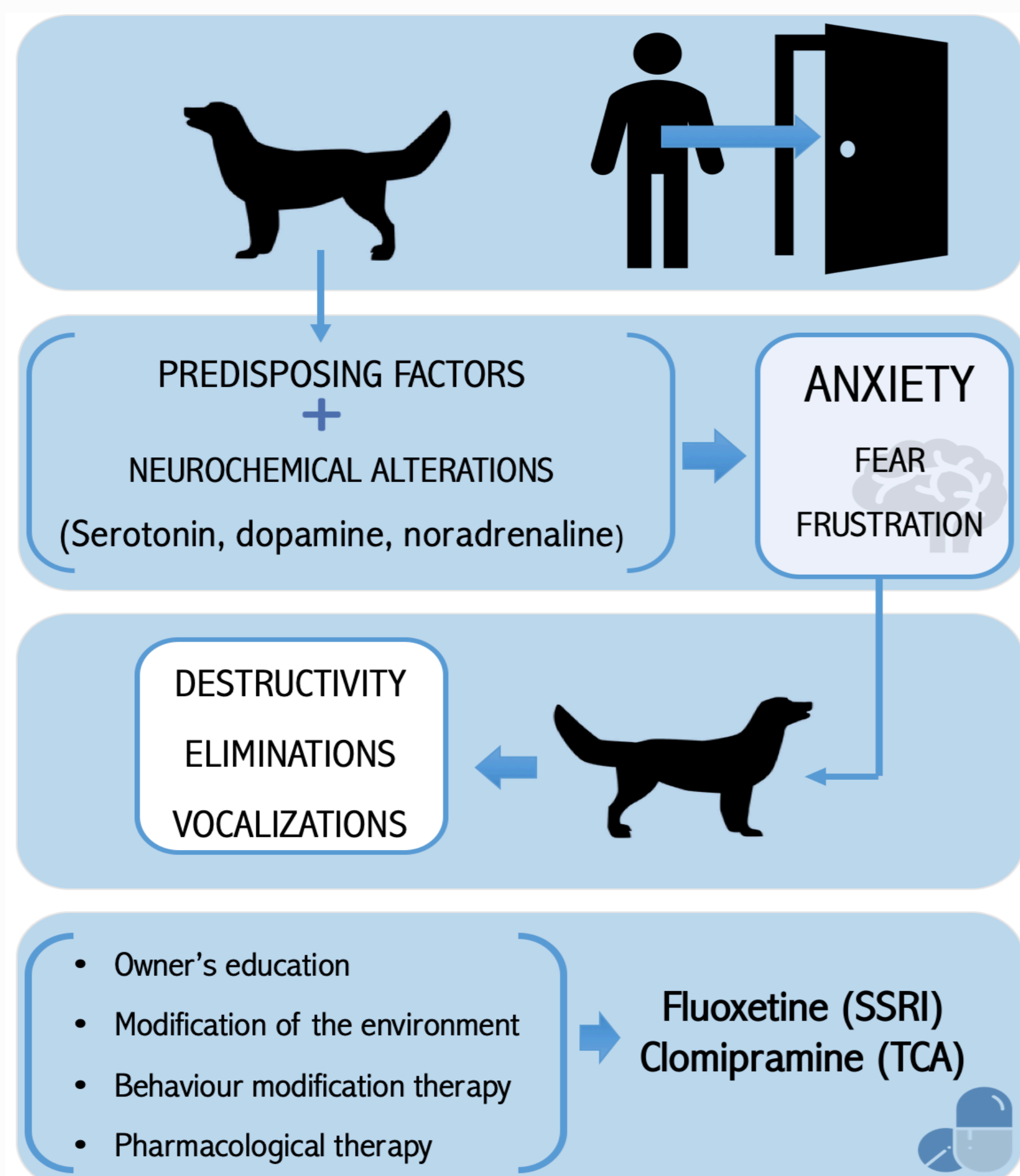
Selegiline is clinically important for the treatment of cognitive dysfunction syndrome in geriatric animals.

Clomipramine, the most selective TCA drug, is useful in the treatment of obsessive-compulsive disorders, aggression and separation anxiety disorders in dogs.

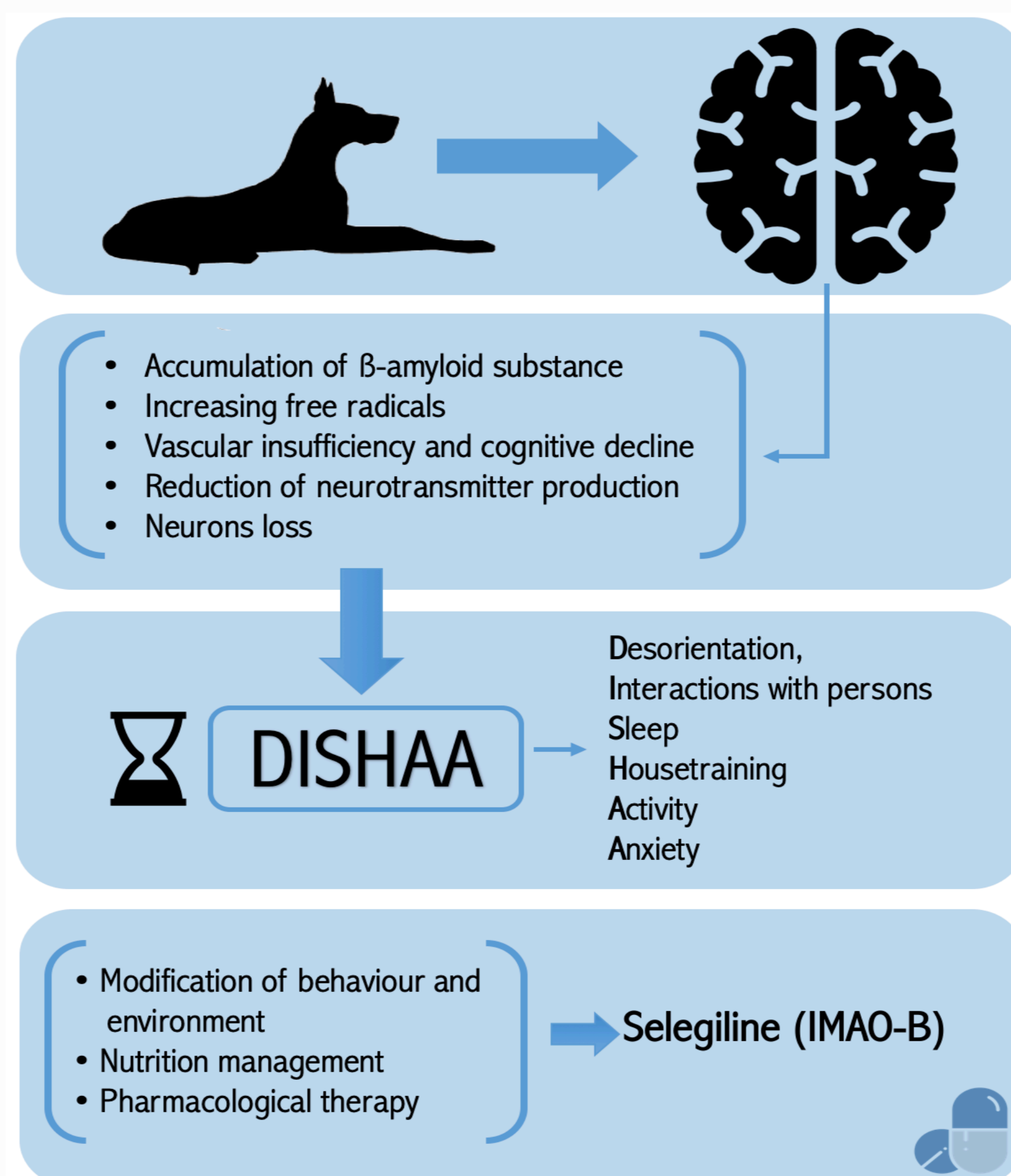
Fluoxetine can be useful in impulsive aggression treatments, stereotyped behaviours, anxiety disorders, or cognitive dysfunction syndrome.

BEHAVIOUR DISORDERS IN DOGS

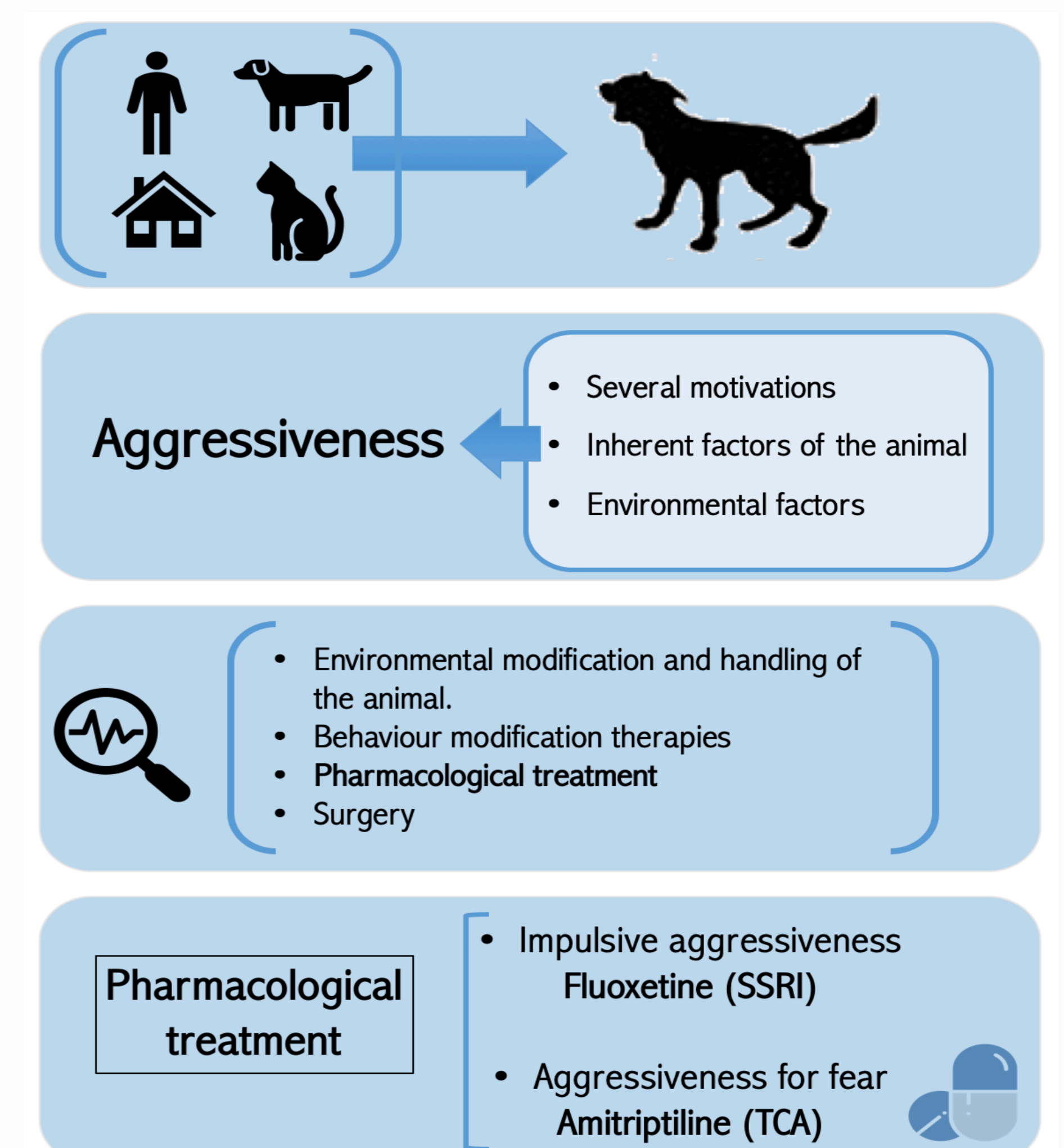
Separation anxiety



Cognitive dysfunction syndrome



Aggressive disorder



CONCLUSIONS

- Depression has not been described in dogs, but they can develop several behavioural problems. The election treatment is based in a combination of various techniques, including antidepressant therapy.
- The most common behavioural problems are due to neurotransmitter deficits in the central nervous system. Main neurotransmitters involved are dopamine, noradrenaline and serotonin.
- The antidepressant drugs most frequently prescribed in veterinary medicine are: tricyclic antidepressants, selective inhibitors of serotonin reuptake and MAO-B inhibitors.

REFERENCES

Amat M, Camps T, Le Brech S, Tejedor S. 2018. Manual práctico de etología clínica en el perro. 2.ª ed. Barcelona (España): Multimedia Ediciones Veterinarias.

Hernández P. 2012. Manual de etología canina. Servet.

Landsberg G, Araujo JA. 2005. Vet Clin North Am - Small Anim Pract. 35:675-698.

Rang HP, Ritter JM, Flower RJ, Henderson G. 2016. Sistema nervioso: Antidepresivos. En: Rang & Dale's Pharmacology. 8.ª ed. Barcelona (España): Elsevier. p. 570-585.

Simpson BS, Papich MG. 2003. Pharmacologic management in veterinary behavioral medicine. Vet Clin North Am - Small Anim Pract. 33(2):365-404.

