



Genetic predisposition regarding eating disorder

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Introduction

Eating disorders are the third chronic disease among female teenagers and young people nowadays. We are facing a disease which has multi factor origin; the interaction between the genetic component with the environmental variables and their influence mediated by the physiological variables and the puberty¹.

Malnutrition changes the correct running of the neurotransmitter systems, among other things. The hypothalamus maintains the nutritional balance of the body by activating or inhibiting the food intake through a complex tract of neurotransmitters. Different genes which are involved in those networks of neurotransmitters have been identified, and also, some studies have been researched in order to explain the influence of those genes in the eating disorders².

Objectives

1. Knowing the genetic component's interactions with the environmental variables and their influence mediated by the physiological variables and the puberty.
2. Describing the genetic alterations involved in the serotonergic, monoaminergic, and noradrenergic tracts which are related with the eating disorders

Methodology

- Bibliographical research of scientific articles, books and doctoral thesis in the data base PubMed. Keywords such as: "eating disorders and genes and feeding behavior disorders and gens".
- Extension regarding the searching of articles referenced in the main bibliography.
- Memory redaction and poster development.

Results

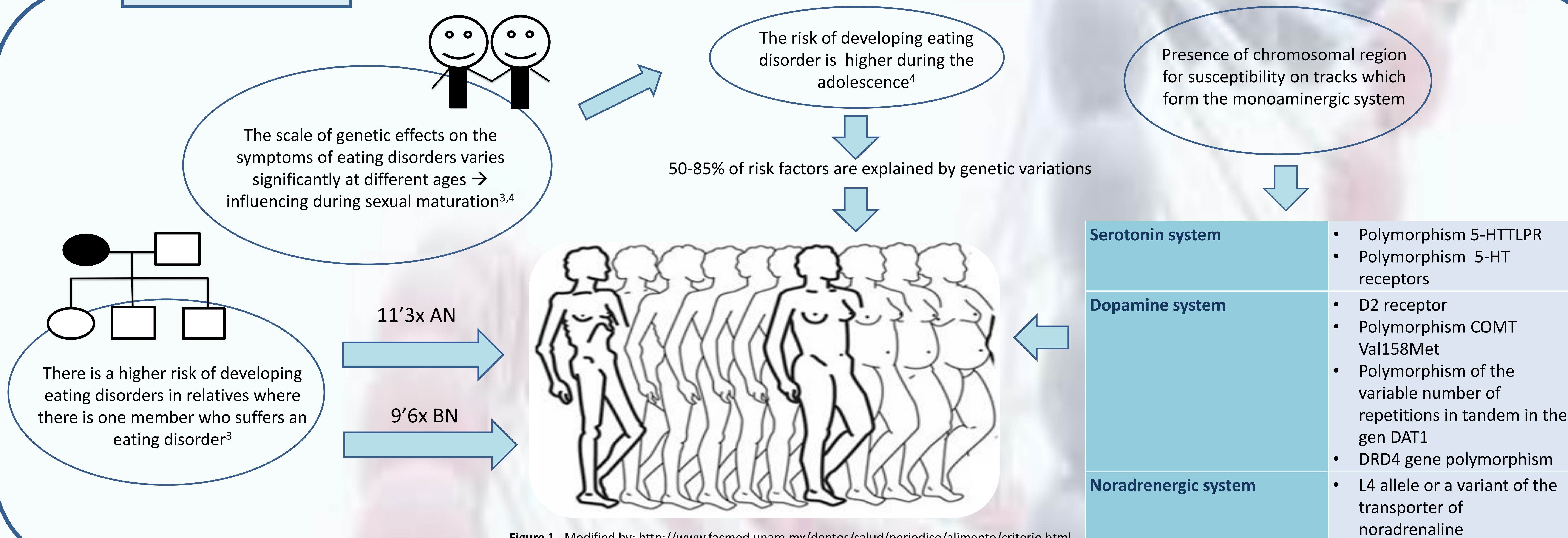
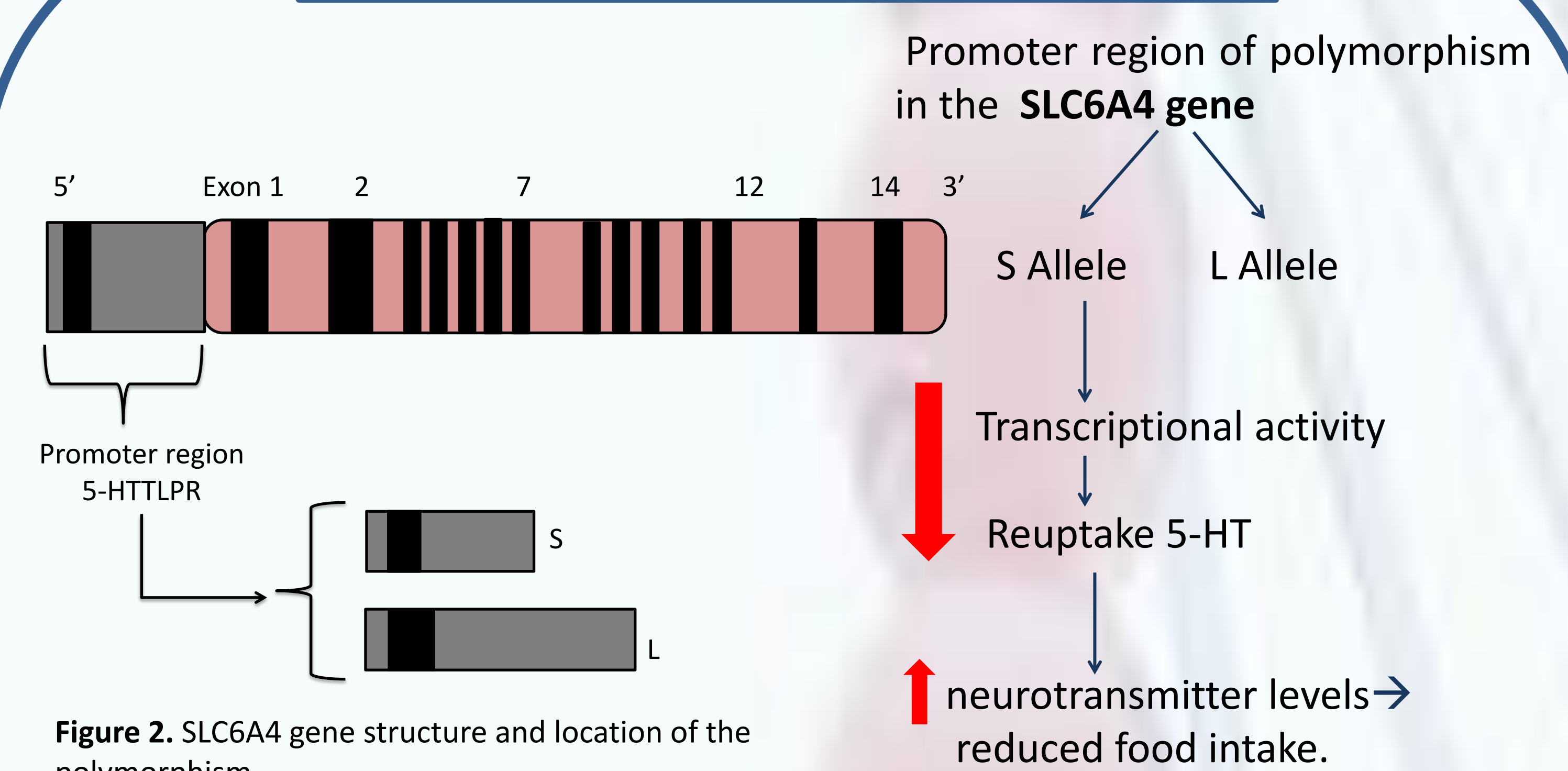
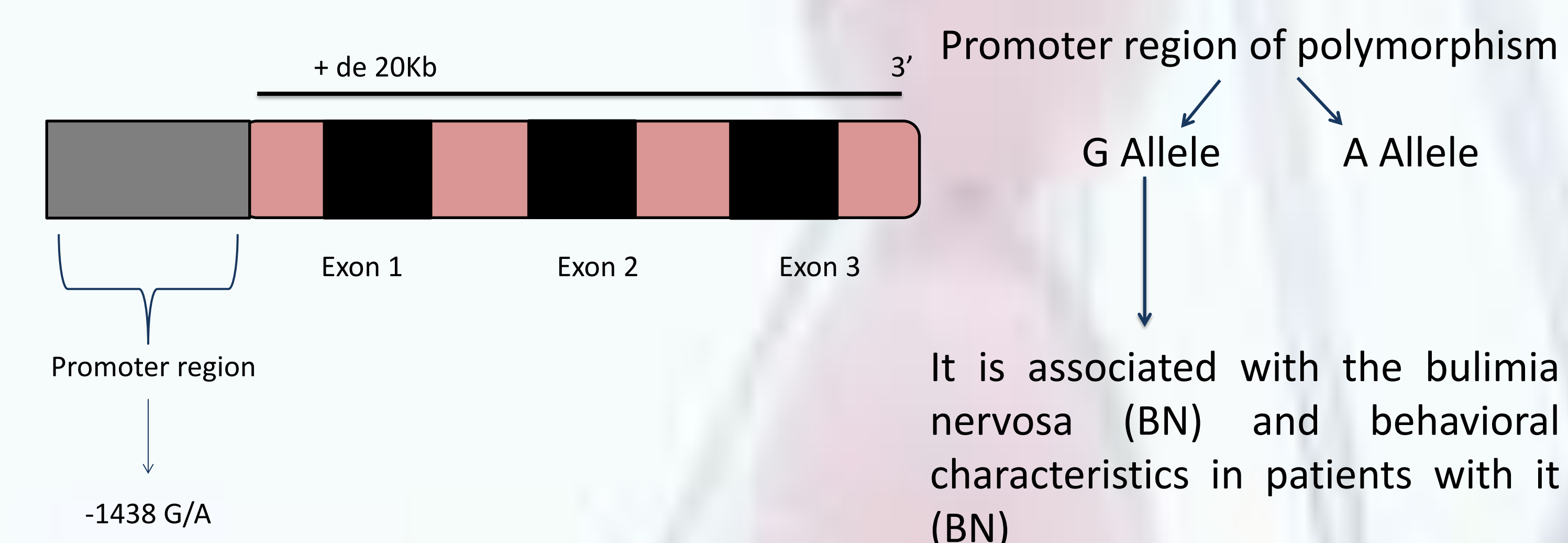


Figure 1. Modified by: <http://www.facmed.unam.mx/deptos/salud/periodico/alimento/criterio.html>

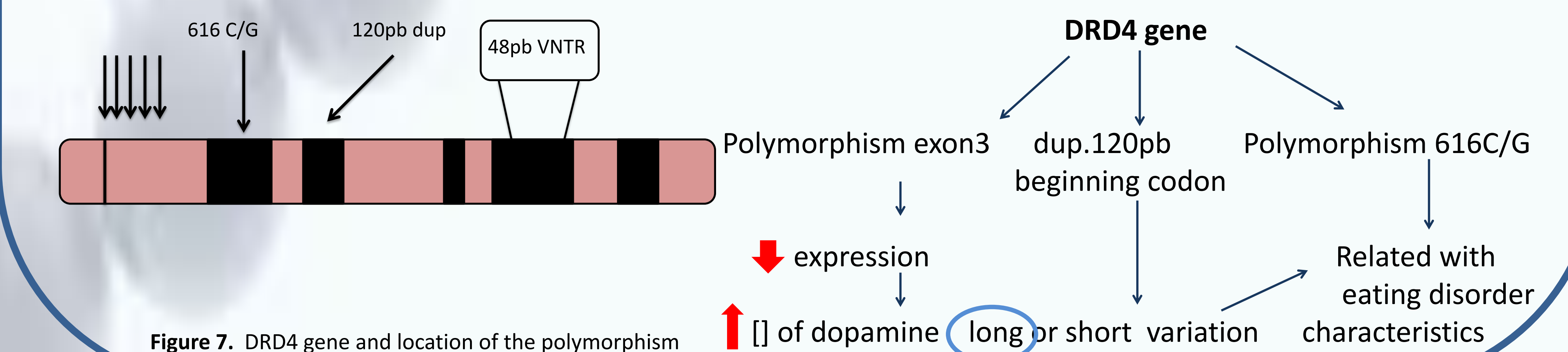
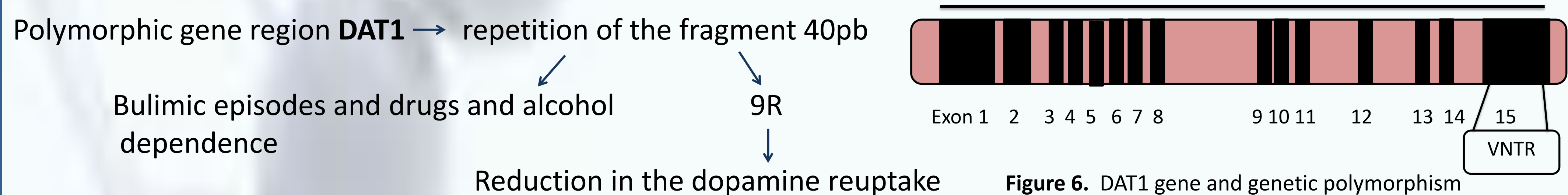
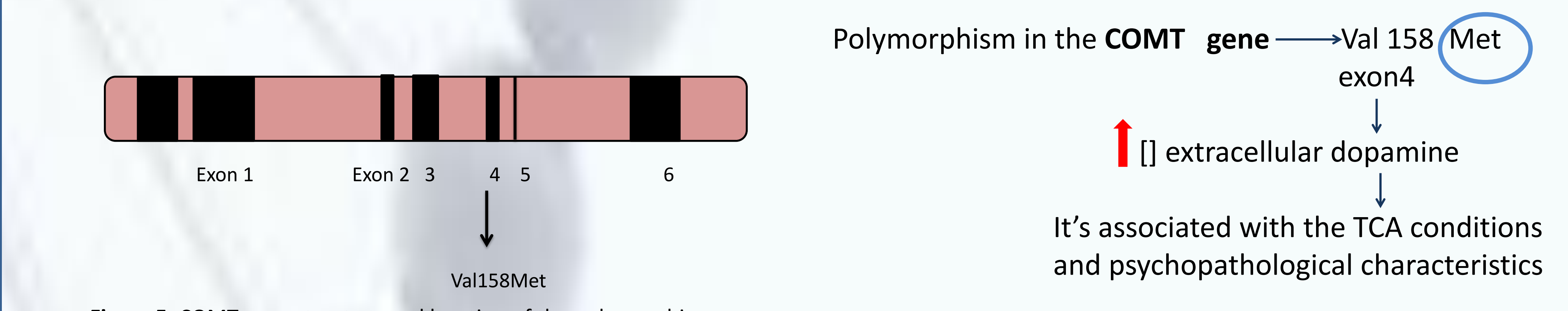
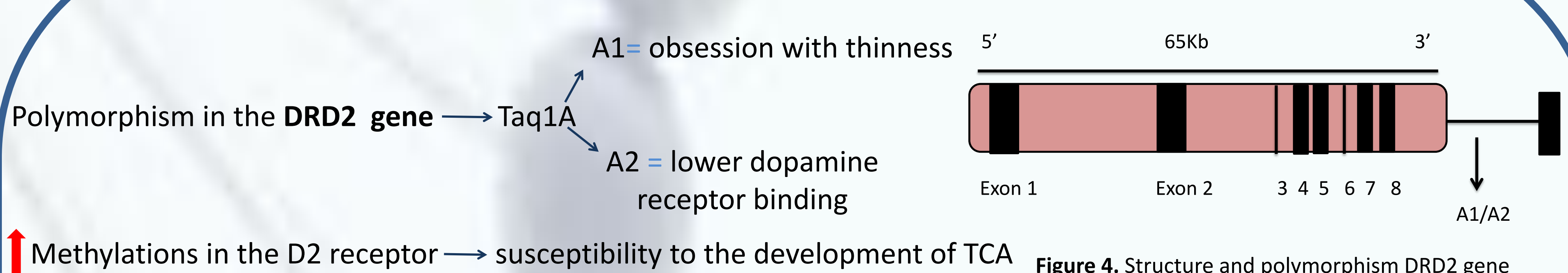
Serotonin system



5-HT_{2A} gene encodes the 5-HT_{2A} receptor → The reduction of the receptor leads to the altered transcription of a gene associated with common features to eating disorders



Dopamine system



Conclusions

- Epidemiological, relatives and twins studies suggest that genetic factors are involved in the pathogenesis of eating disorders and they may be able of explaining between the 40% and 60% of susceptibility to these disorders.
- Our results show that certain genetic variants in serotonergic, dopaminergic and noradrenergic genes may have higher influence on eating disorders clinic.
- Candidate genes which have been associated with eating disorders are not enough for explaining them, because they behave as a characteristic pattern of complex diseases.

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