Thesis Erratum

Preface

Page xix: These clinical trials involved young adult individuals with DS (14-30 years old in the phase I and II)

Introduction

Disclosure of the correct font style code:

- PROTEIN
- *HUMAN GENE*
- *Mouse gene*

Page 4: These deficits are critically incapacitating in everyday life as learning and memory are involved with a large number of activities from self-care to socialization and independent functioning.

Page 6: However, as early as at 3-5 months of age clear alterations start appearing in DS brains […].

Page 7: These brain areas have been long known to be responsible of processes that involve information acquisition, encoding, and retrieval (Burgess et al., 2002).

Page 8: Figure1 legend: Structures involved in intellectual dysfunction in individuals with DS (Lott and Dierssen, 2010).

Page 8-9: The fact that individuals with DS present increased seizure activity supports the idea that the excitatory-inhibitory systems are altered (Menéndez, 2005; De Simone et al., 2010).

Page 9-10: Intraneuronal amyloid-β can be detected by radiolabelled Pittsburgh compound-B (PiB) through positron emission tomography (PET) neuroimaging ~~neuroimaging~~ (Handen et al., 2012).

Page 15: Muriel (instead of Murie~~n~~) Davisson

Page 18: Footnote number 4: Dentate gyrus (DG) plays a key role in spatial memory […] project their axons to CA3 forming the ~~the~~ mossy fibers (Deng et al., 2010).

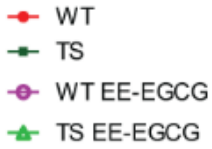
Page 21: BFCN ~~that~~ is initiated at 5-6 months of age […].

Page 26: In both DS and AD, this proteolytic pathway is attenuated as shown by a reduced co-expression of ADAM10 and/or ADAM17 with nardilysin, which is a peptidase that enhances α-secreatase activity (Bernstein et al., 2009).

Page 35: Another *in vitro* study showed that ~~in~~ hippocampal neuronal cultures derived from Dyrk1A overexpressing mice (bacterial artificial chromosome BACTgDyrk1A) present~~ed~~ a slower rate of synaptic vesicle endocytosis, which was reverted by EGCG treatment (Kim et al., 2010).

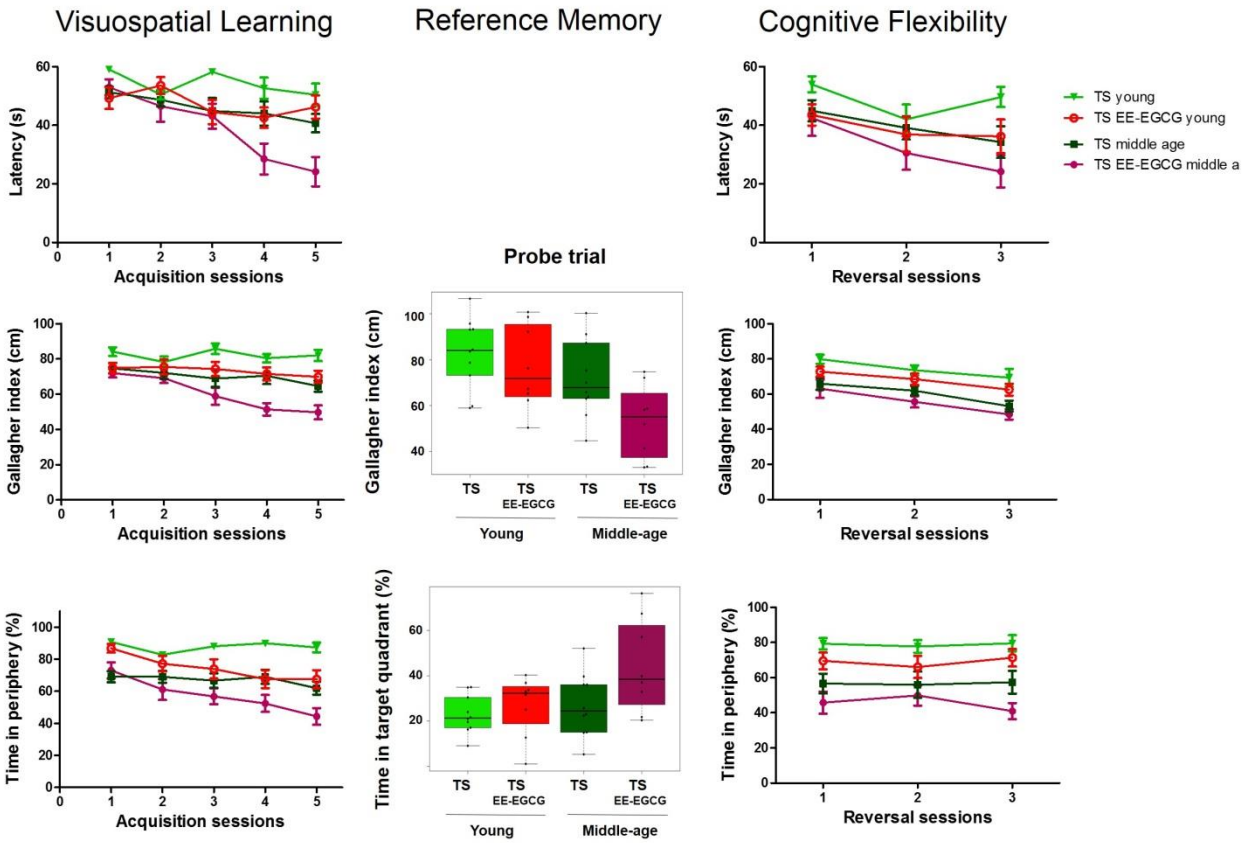
Chapter I

Page 70: In the Paper 1, figure 1 the correct color code for the experimental groups is the following (TS EE-EGCG group is green instead of black):



Unpublished results

Page 143: In the figure 9 the plot of the Time in the periphery (%) for the acquisition sessions was mistaken with the one from the reversal session. As follows the correct figure:



Page 145: Clarification of the legend of figure 10:

The column of the left shows young mice (2-3 months old) density distribution of performance in PC1 and PC2 before and after learning while the column on the right shows the same for middle age mice (6-7 months old). Notice that in every group it appears to be an increase in the spreadding of the points after learning in the older mice in comparison to younger mice. For WT middle age mice the increase in heterogeneity after learning is mainly across the PC2 axis suggesting that the behavioral differences are mostly related to swimming speed. On the contrary for EE-EGCG treated Ts65Dn mice the increase in heterogeneity is both in PC1 and PC2 indicating a behavioral variability in learning and motor parameters.

Page 199: […] decrease in LTP which is reverted by $GABA_A$ and $GABA_B$ receptors antagonists […].

Page 200: combined therapy with CT and EGCG could ~~contribute~~ also be beneficial in older DS individuals […].

Page 201: Does it mean cognitive changes that translate into functional changes? Those aspects were not previously defined […].