

Avoidance task. Trained individuals show a daily improvement in their avoidance responses during 4 consecutive sessions. Moreover, the trained zebrafish exhibits a long term memory of the task, evaluated 24 hours after the last training session. To address the role of cognitive activity in network remodeling we evaluated neuronal progenitor proliferation in the zebrafish pallium. We found that active avoidance training induces a two-fold increase in the proliferation of neuronal progenitors in a discrete sub-region of the Dorso-medial pallium. This finding leads us to plan further experiments to interrogate the role of this cognitive activity on other aspects of adult neurogenesis, as neuronal fate, synaptic integration, and neuronal survival.

Cognition, Behavior, and Memory

P170.-Extinction learning efficiency in *Neohelice granulata* depends on the proximity to the original memory acquisition. An explanation correlated to the NMDA receptor surface expression dynamics

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Context-signal memory (CSM) in the crab *Neohelice granulata* depends on NMDA receptor activity. The surface expression of the GluN1 subunit of the receptor is altered during consolidation in the central brain: while the total amount of the receptor remains constant, surface expression of GluN1 is down-regulated immediately after training, up-regulated 3 hr after training and returns to naive and control levels 24 hr after training. A possible interpretation is that the decrement immediately after training wouldn't allow further activation through the receptor, affecting the incorporation of new information to the previous memory. On the contrary, the increment 3-hr post-training, once the consolidation process is advanced, could reflect a higher probability of activation, facilitating the addition of new information. To test this, we focused on the extinction learning (also dependent on NMDA receptor activity), enabling a second learning event at the post-training time points when surface expression is altered. Our results show that the extinction protocol has different outcomes when applied at different times: immediately after training, no extinction is found in the retention of CSM; on the other hand, when applied 3 hr post-training, a significant decrease in the retention of CSM occurs, indicating extinction. The results suggest that the maturation of memories shows different capabilities to add information and that these variations correlate to NMDA surface expression.

Cognition, Behavior, and Memory

P171.-Role of 5-HT2A receptor in social cognition in mice

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The serotonergic system and more precisely the serotonin type 2A receptor (5-HT2AR) is involved in a wide variety of cognitive and emotional functions. In recent studies, it has been found that 5-HT2AR participates in the prosocial effects of certain drugs. Moreover, the social cognitive impairments observed in different psychiatric disorders, such as schizophrenia and Asperger syndrome, have been associated with a hypofunction of the 5-HT2AR. However, the mechanisms underlying this phenotype remain unclear. In the present study we analyzed the role of 5-HT2AR in social preference (SP) using a genetically modified mouse model that presents a

constitutive depletion of the 5-HT_{2A}R (KO) compared with their wild type mates (WT). For this purpose we performed a three-chamber sociability test. We also explore how SP can be affected by an increased level of serotonin in the central nervous system via chronic administration of fluoxetine. We observed that both male and female KO mice had a lower social preference compared to WT. Thus, the chronic administration of fluoxetine increased social preference only in WT mice. These results suggest that the serotonergic system could be involved in SP and that its participation could be mediated at least partially by 5-HT_{2A}R.

Cognition, Behavior, and Memory

172.-Norms for emotional words in Spanish: Preliminary findings from an Argentinian adaptation of the Affective Norms for English Words

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The Affective Norms for English Words (Bradley & Lang, 1999) are a normative set of verbal material rated by a sample from the United States on valence, arousal, and dominance. The aim of this study was to adapt this set and provide a normative pool of emotional words for Argentina. The 1034 words from ANEW were translated and adapted to Rioplatense Spanish by three bilingual judges, until reaching complete agreement. Then, all 1034 translated words were randomly divided into 6 lists. Two-hundred volunteers (166 women, range: 18 – 52 years) from the Buenos Aires Metropolitan Region received one word-list and they were instructed to assess each item according to its valence, arousal and dominance, through the Self-Assessment Manikin. The results indicated that valence and arousal conformed to a quadratic distribution similar to the one found on the original sample. Regression analysis showed a significant relationship between valence and arousal, which explained 26.5% of the variance. Furthermore, there were no differences in the valence ratings between the US and the Argentinian sample; however, the latter showed higher ratings for arousal and dominance. While normative scores for emotional stimuli are widely used in neuroscientific research, culturally-specific instruments are not always available. The results from this study represent a first step towards reliable and valid instruments to assess the verbal aspects of emotion in Argentinian populations.

Cognition, Behavior, and Memory

P173.-Dopaminergic and Noradrenergic systems control protein synthesis during the behavioral tagging process underlying memory reconsolidation.

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Our recent findings show that memory reconsolidation relies on a behavioral tagging process. That is to say, the event which triggers memory reconsolidation induces both the setting of a tag, which later decides where memory will be stored, and the synthesis of plasticity related proteins (PRPs) that will be captured at the tagged sites for memory reconsolidation to occur. Our current work focuses on identifying the neurotransmitter systems and the brain structures that regulate the synthesis of PRPs. Using the spatial object recognition (SOR) task, we show that the infusion of the D₁/D₅-dopaminergic receptor antagonist SCH23390, or the β -adrenergic