Positive effects of enriched environment in horses: a behavioral and genomic assessment

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INTRODUCTION

Enriched Environment

↗ Well-being
↗ Cognitive functions

? Personality
Biological signature

METHODS

IE

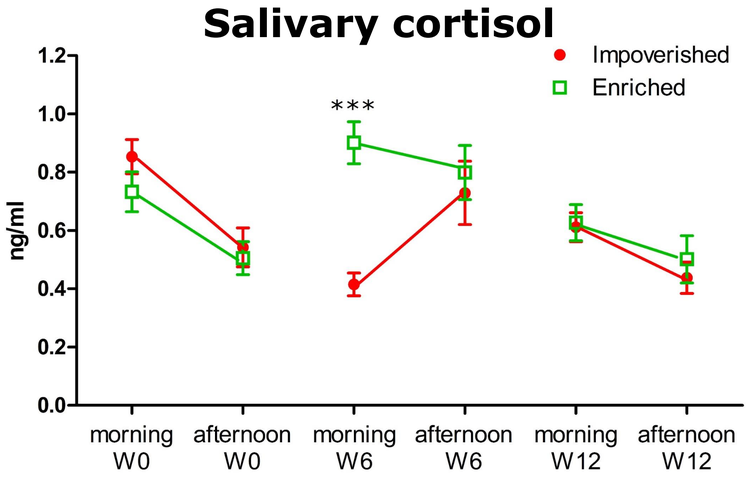
EE

IE: Impoverished Environment (n=9)
EE: Enriched Environment (n=10)

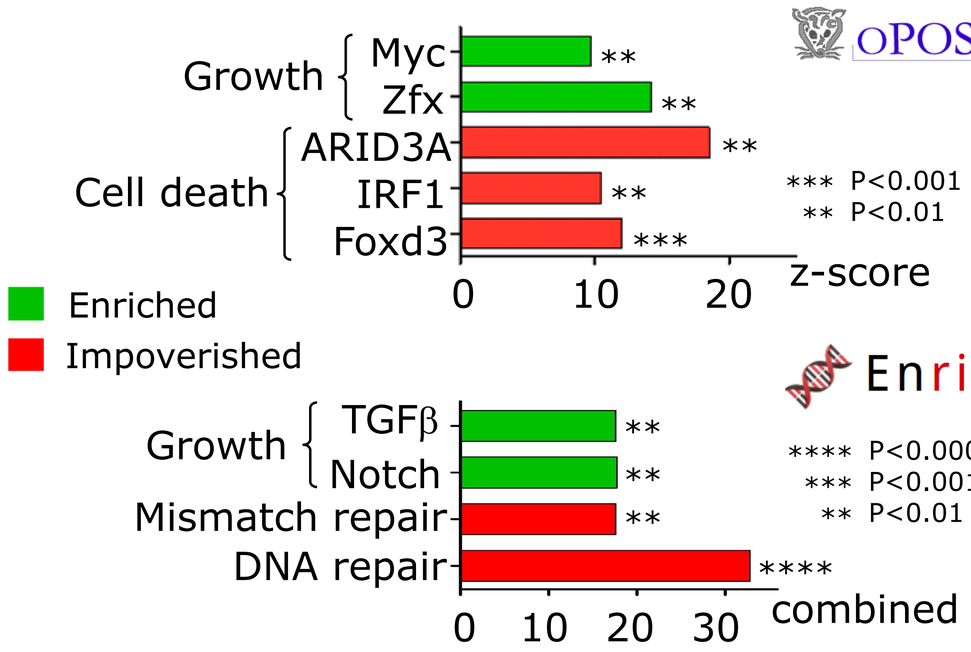
RESULTS

Effects of Enrichment		
Behavior	Weeks 1-6	
Alert postures	↘	
Aberrant behaviors	↘	
Lying down	↗	
Personality	Weeks 5 and 12	Week 23
Fearfulness	↘	↘
Tactile sensitivity	↘	↘
Reactivity to humans	↗	=
Learning performance	Weeks 6-11	
Go/No-Go task	↗	

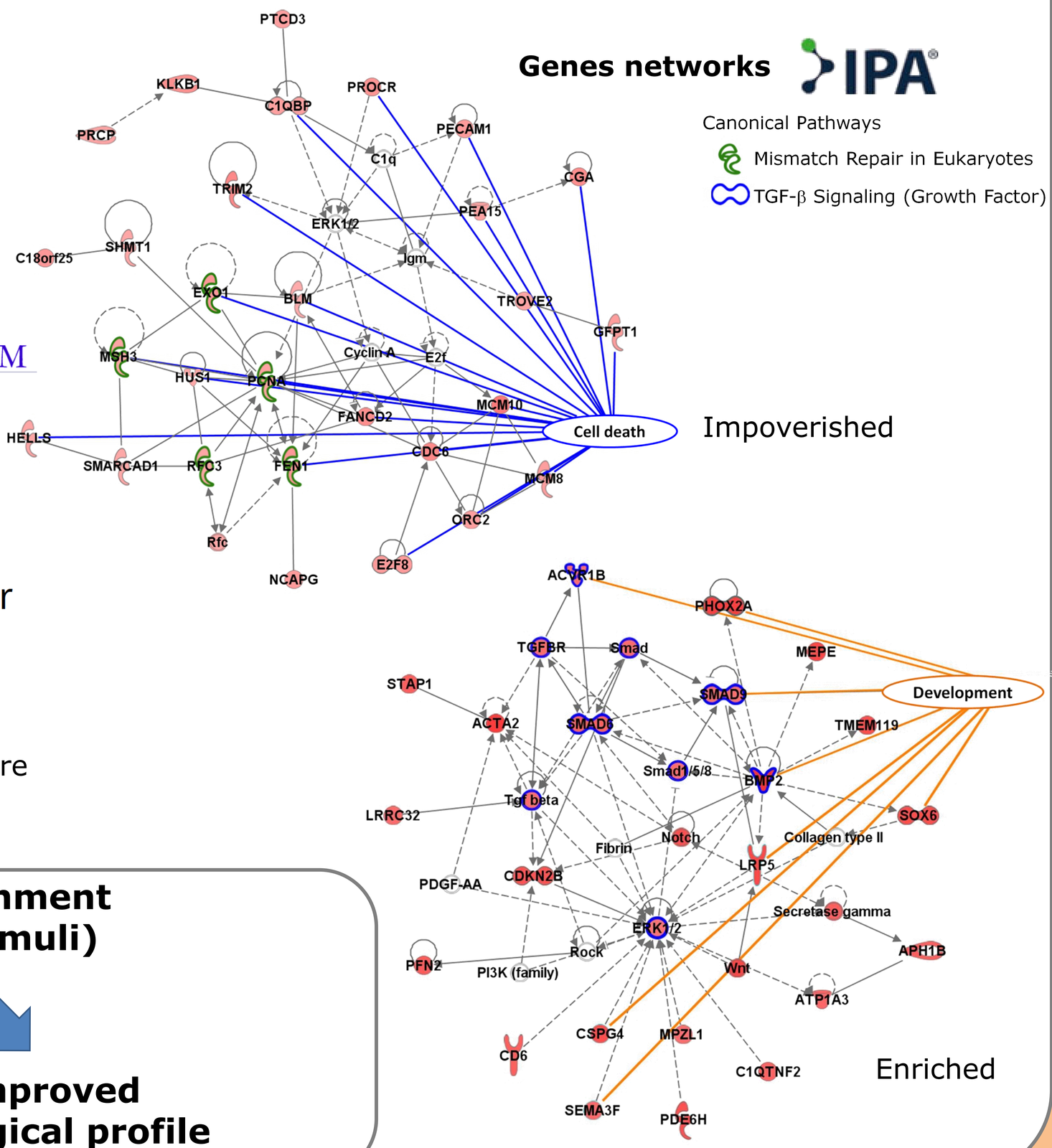
Salivary cortisol



Signaling pathways activation



Genes networks IPA®



CONCLUSION

12-week enriched environment (inanimate and social stimuli)

calm personality, learning abilities, general well-being

improved biological profile

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