









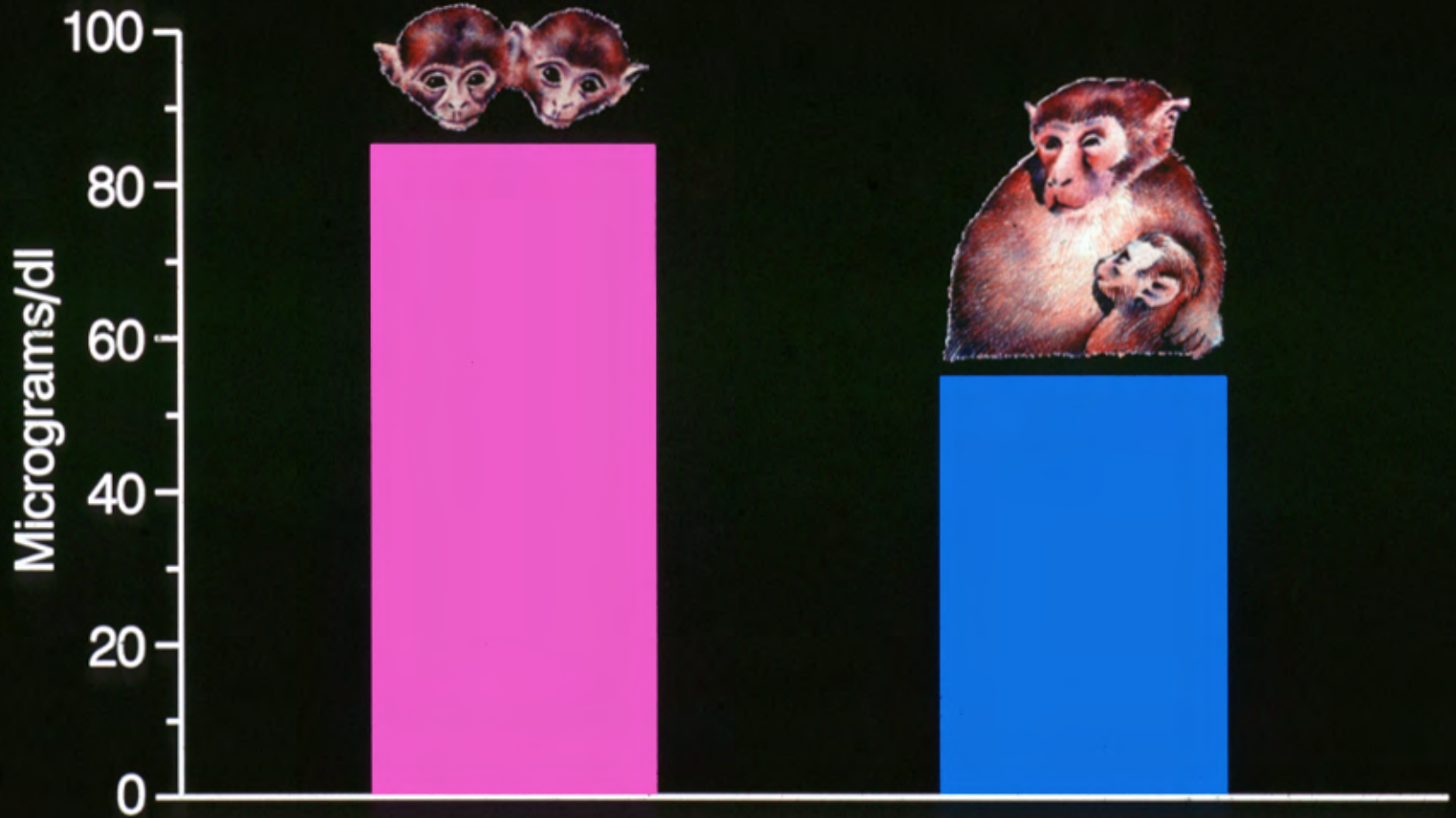






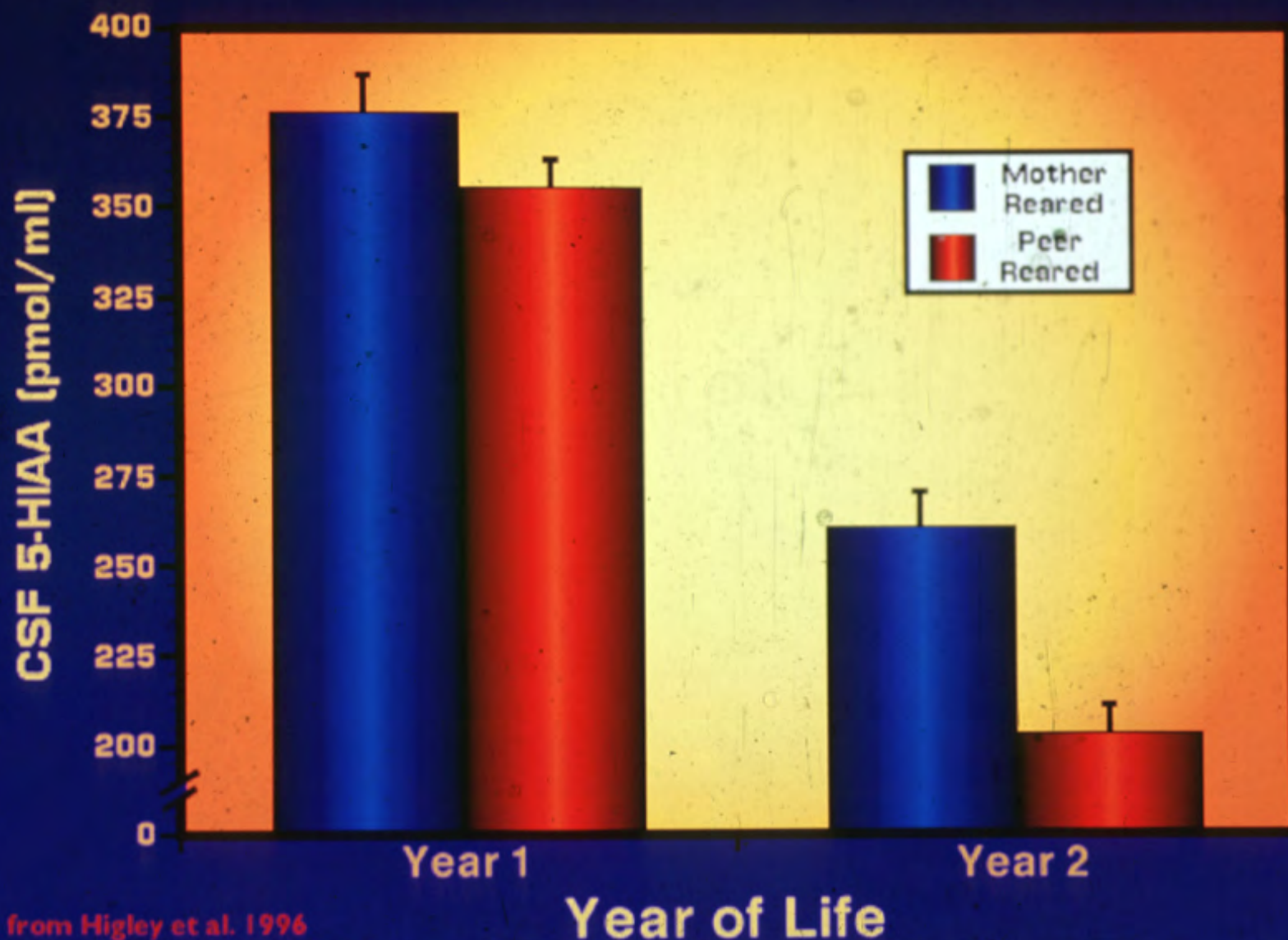


Cortisol

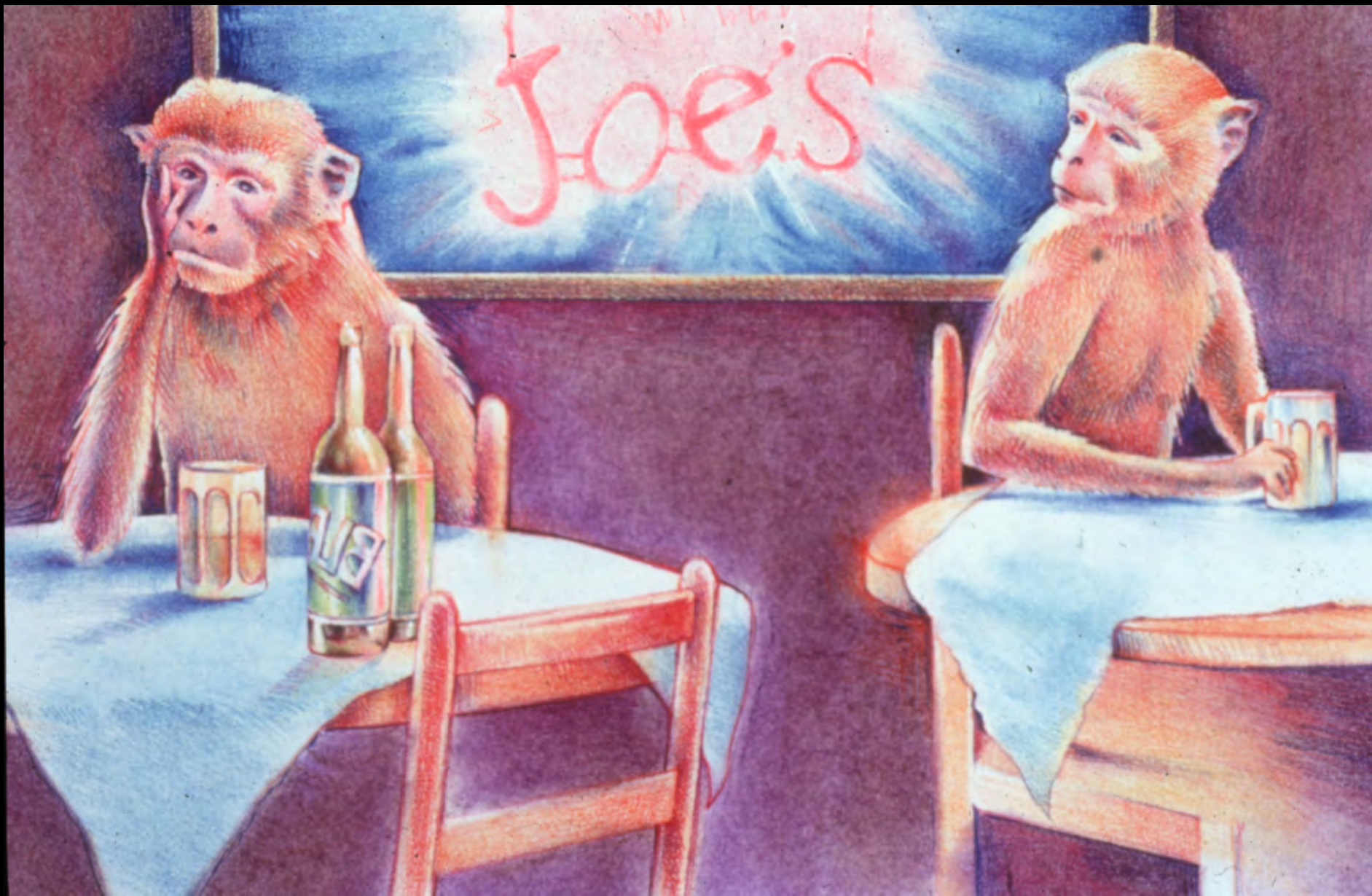




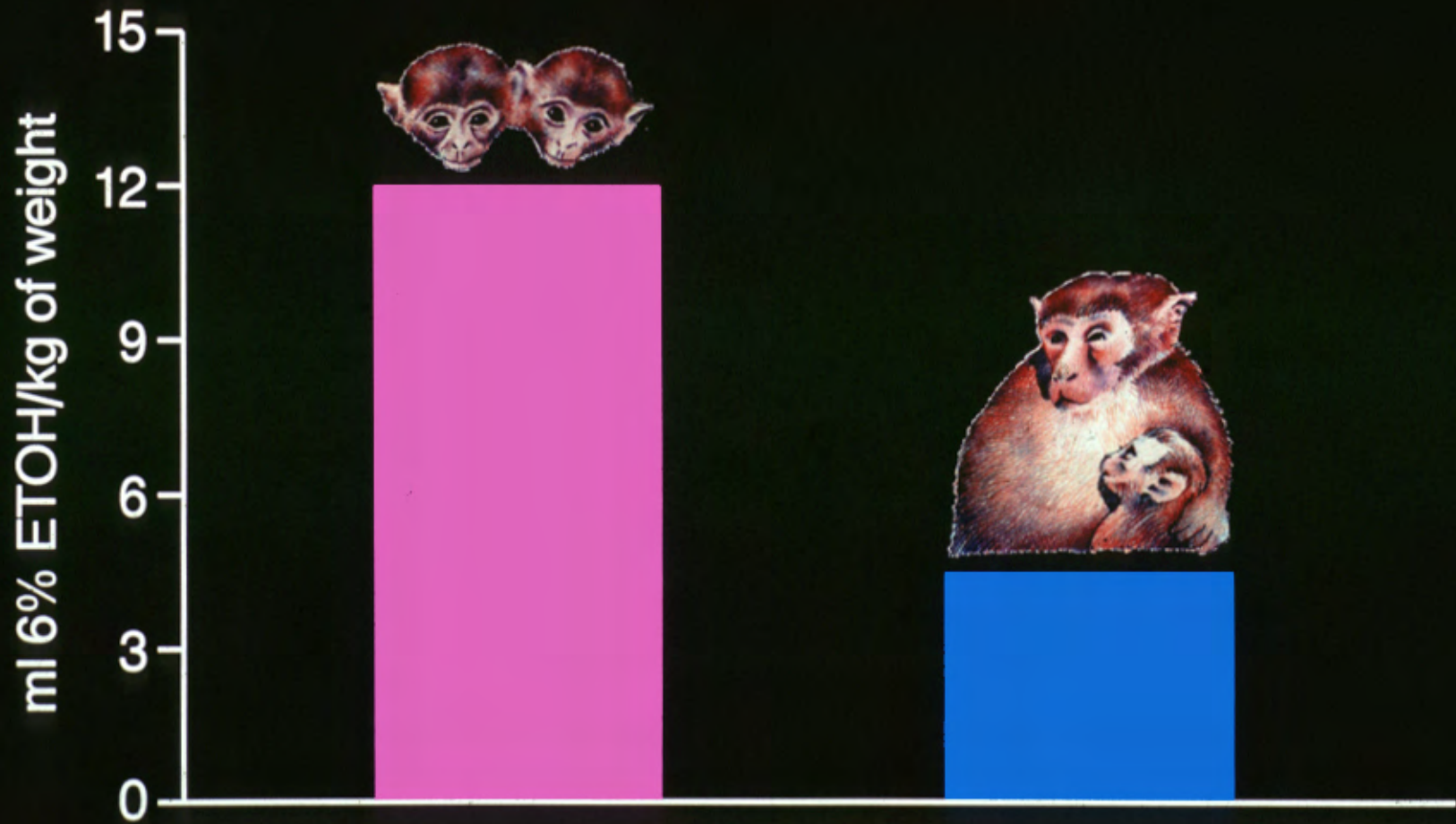
Rearing Effects on CSF 5-HIAA Levels

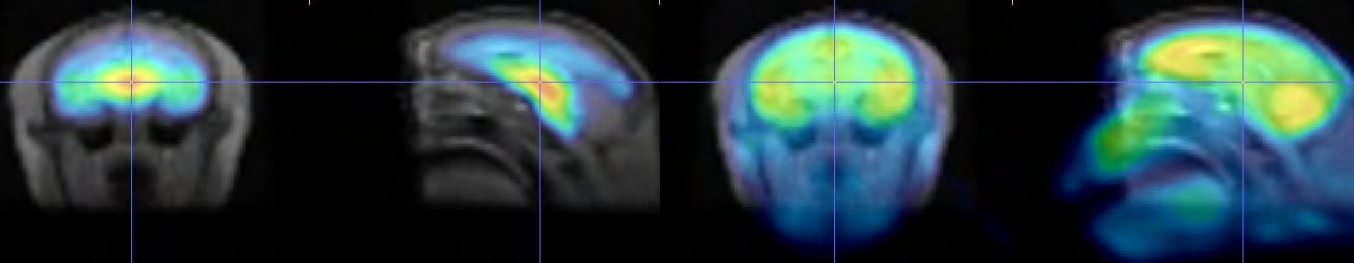
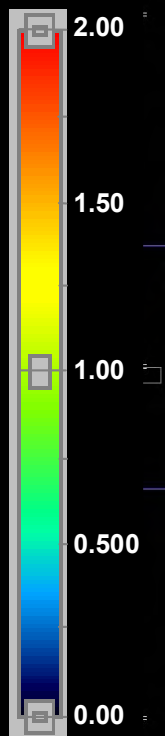


from Higley et al. 1996

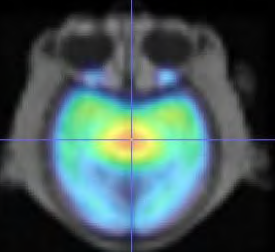


Alcohol Consumption

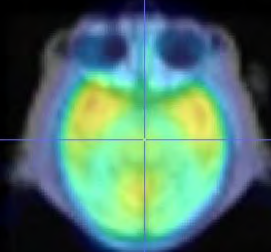




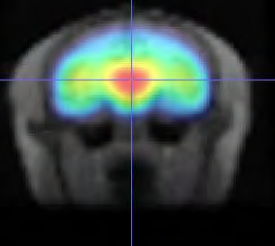
Peer-reared



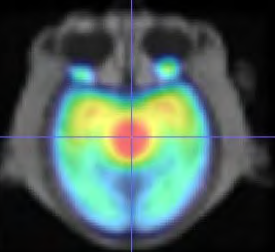
SERT *BP*



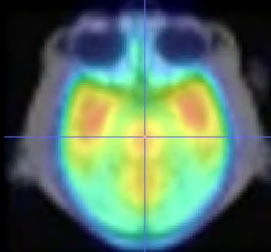
Blood flow



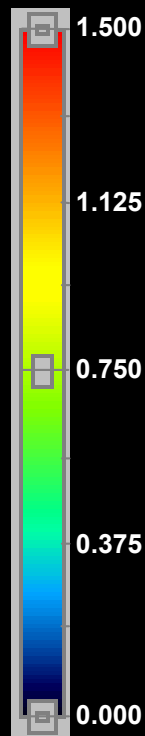
Mother-reared



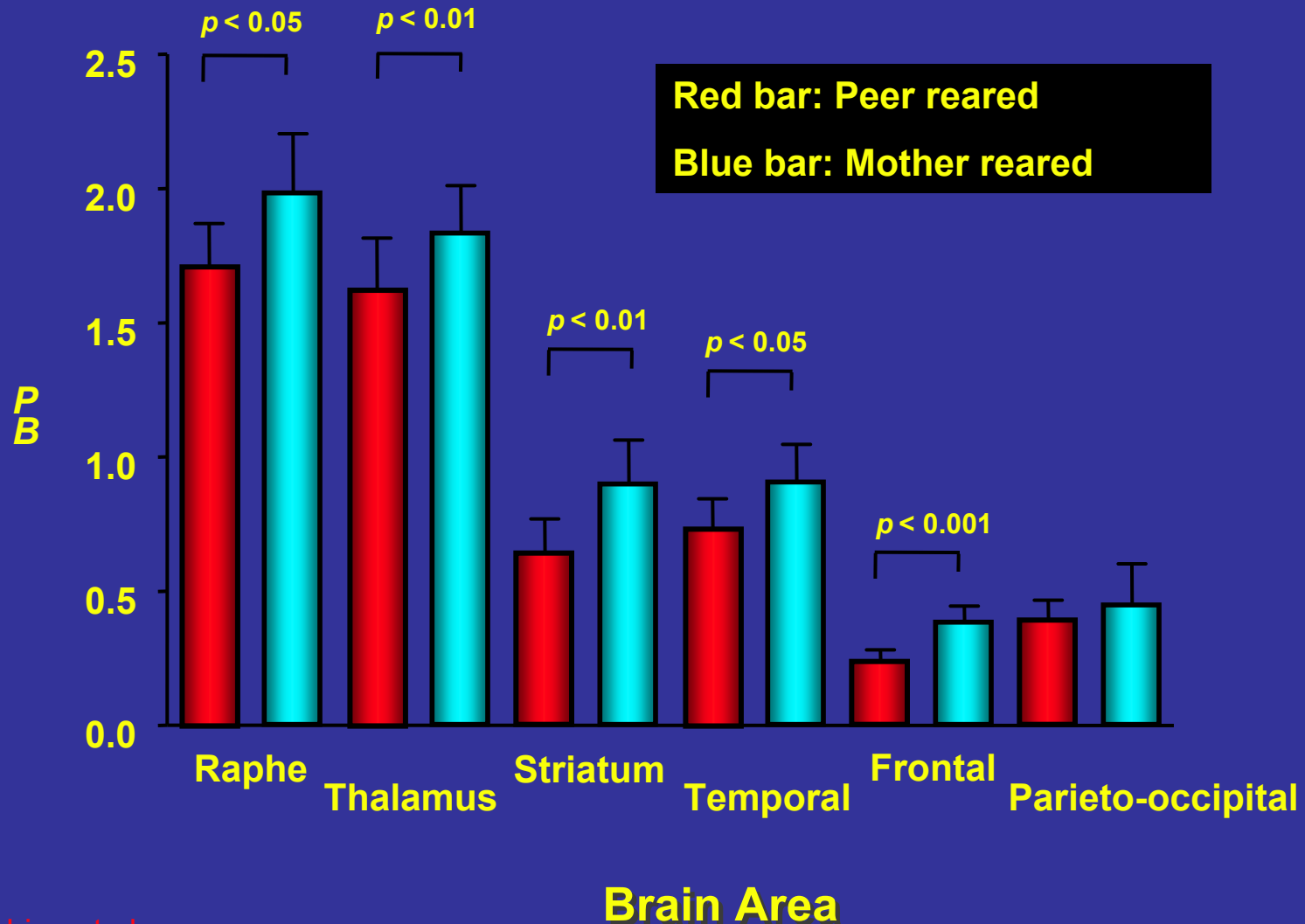
SERT *BP*



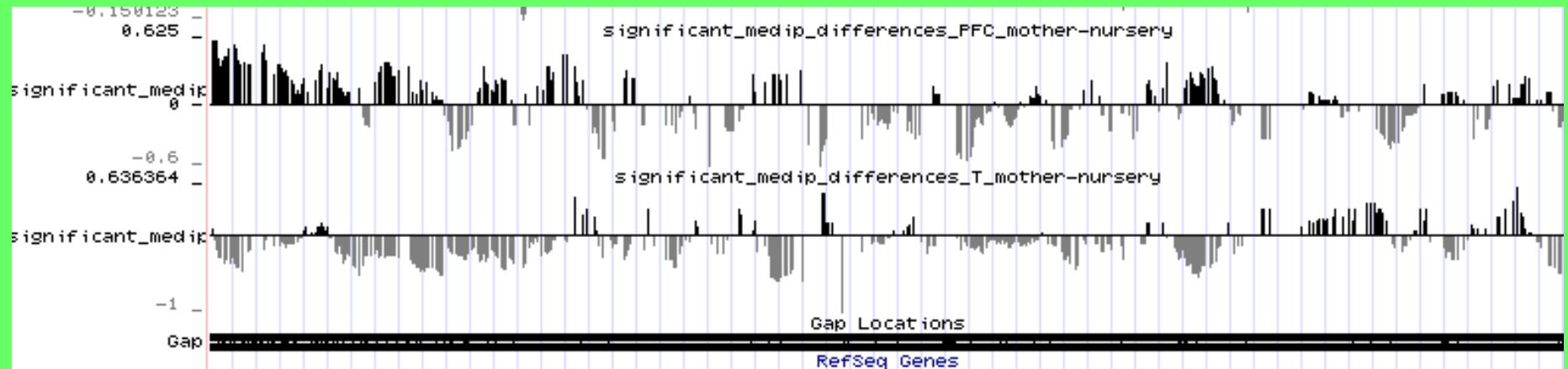
Blood flow



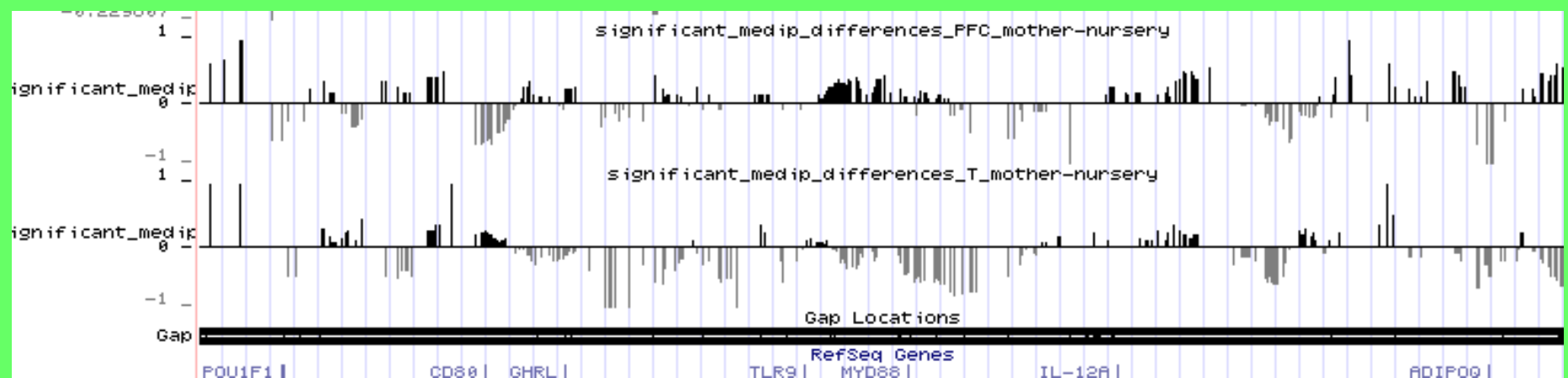
Rearing and Sert Binding Potential



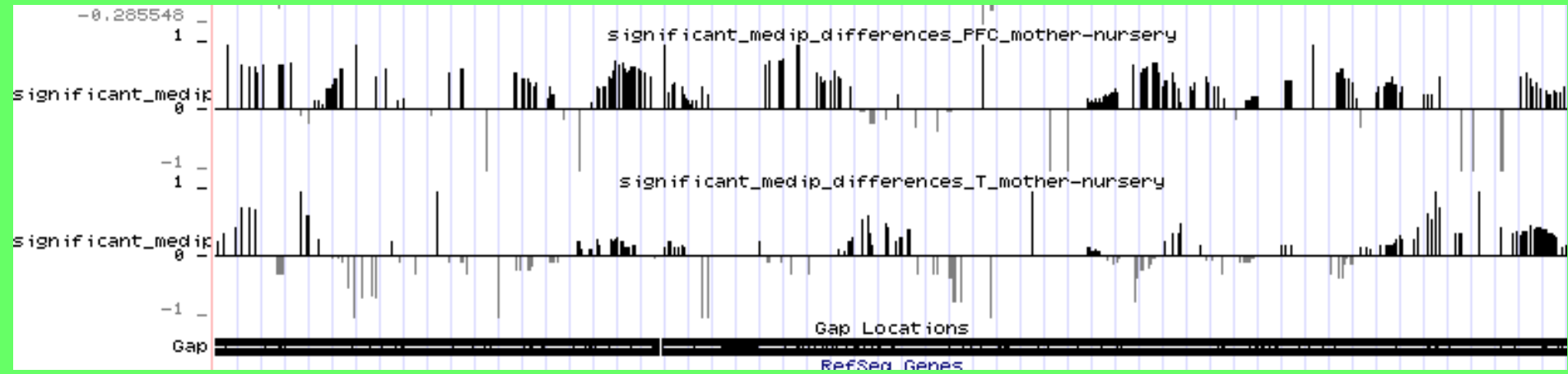
Chromosome 1



Chromosome 2



Chromosome X

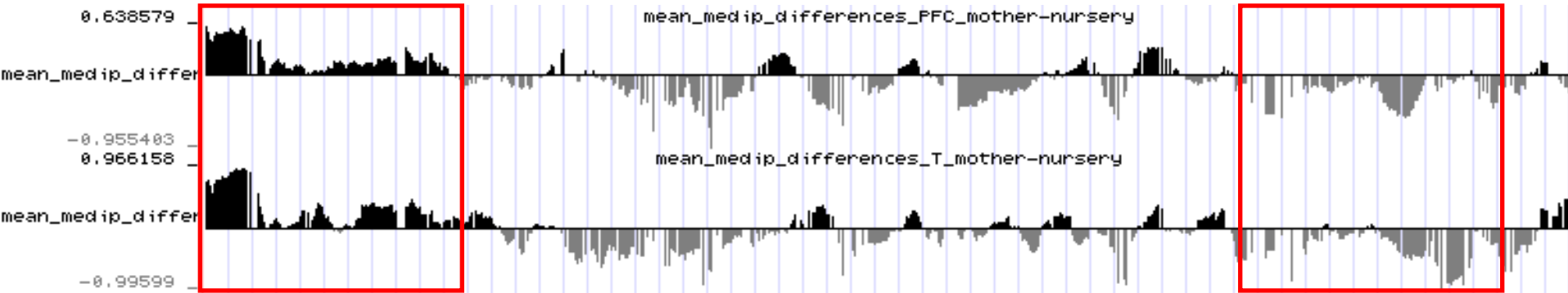


Epigenetic signature associated with maternal care in rhesus monkey; both in T cell and in PFC

Hypermethylated in mother-reared
Hypermethylated in nursery-reared

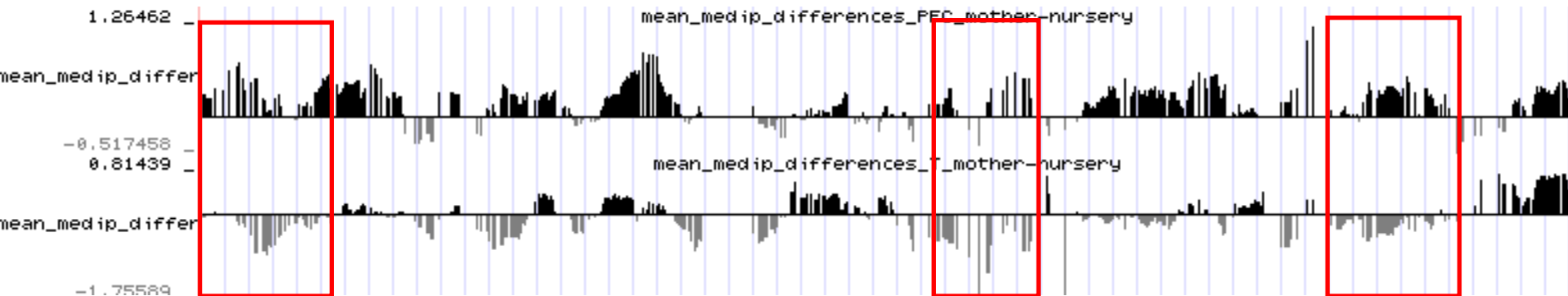


Chromosome 1



Specific chromosomal region show the same response in both tissue in term of methylation associated with the rearing conditions

Chromosome X



Specific chromosomal region show opposite tissue response in term of methylation associated with the rearing conditions

Genes involved in the serotonin pathways that are significantly differentially methylated between mother and nursery reared rhesus monkey

Hypermethylated in mother-reared

Hypermethylated in nursery-reared



Genes	T cells	PFC
SLC6A4_MACMU	Hypermethylated in nursery-reared	Hypermethylated in nursery-reared
5HT2A_MACMU	Hypermethylated in nursery-reared	Hypermethylated in nursery-reared
MAOB	Not methylated	Hypermethylated in nursery-reared
MAOA	Hypermethylated in nursery-reared	Not methylated
TPH1	Not methylated	Hypermethylated in nursery-reared

Genes involved in the HPA axis that are significantly differentially methylated between mother and nursery reared rhesus monkey

Hypermethylated in mother-reared

Hypermethylated in nursery-reared



Genes	T cells	PFC
NR3C1	Hypermethylated in nursery-reared	Hypermethylated in nursery-reared
NR3C2	Hypermethylated in nursery-reared	
AVPI1		Hypermethylated in mother-reared
AVPR1A		Hypermethylated in mother-reared
AVPR2		Hypermethylated in mother-reared
AVPR1B	Hypermethylated in nursery-reared	
CRH		Hypermethylated in mother-reared
CRF1_MACMU		
CRHR2		
IL1A_MACMU	Hypermethylated in nursery-reared	
IL1B_MACMU	Hypermethylated in nursery-reared	Hypermethylated in nursery-reared
IL1R1		Hypermethylated in nursery-reared
IL1RL1	Hypermethylated in mother-reared	Hypermethylated in mother-reared
IL2_MACMU	Hypermethylated in nursery-reared	Hypermethylated in nursery-reared
IL6_MACMU	Hypermethylated in nursery-reared	Hypermethylated in nursery-reared
TNFA_MACMU	Hypermethylated in mother-reared	
TNFC_MACMU		Hypermethylated in mother-reared
INFG_MACMU	Hypermethylated in mother-reared	Hypermethylated in nursery-reared
INFA14	Hypermethylated in mother-reared	

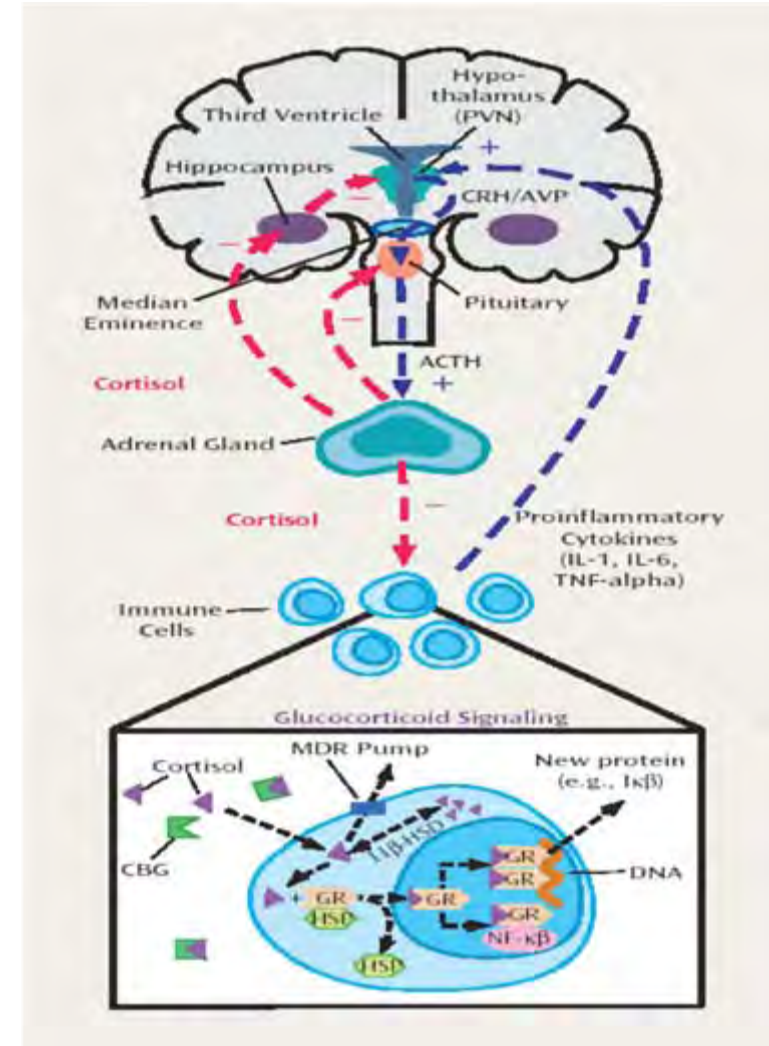
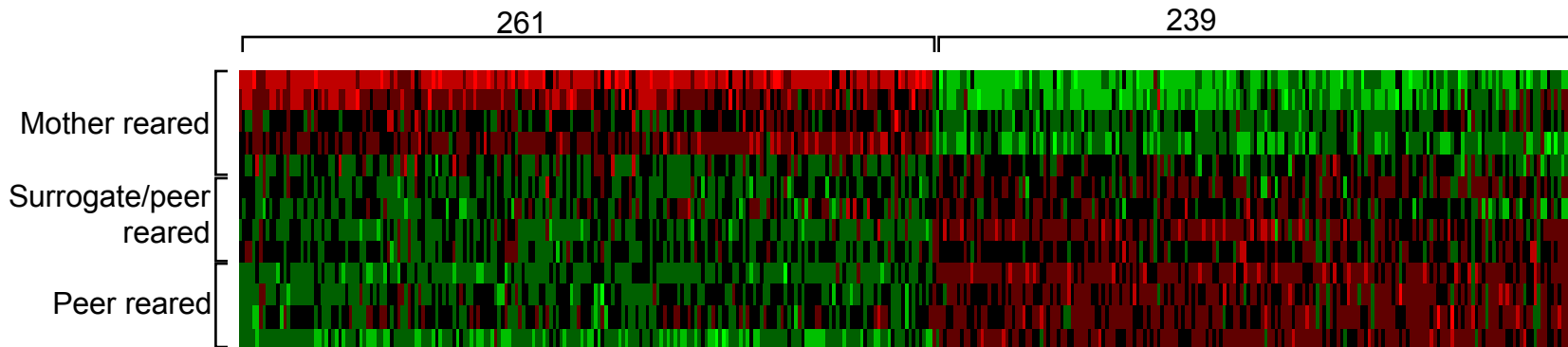
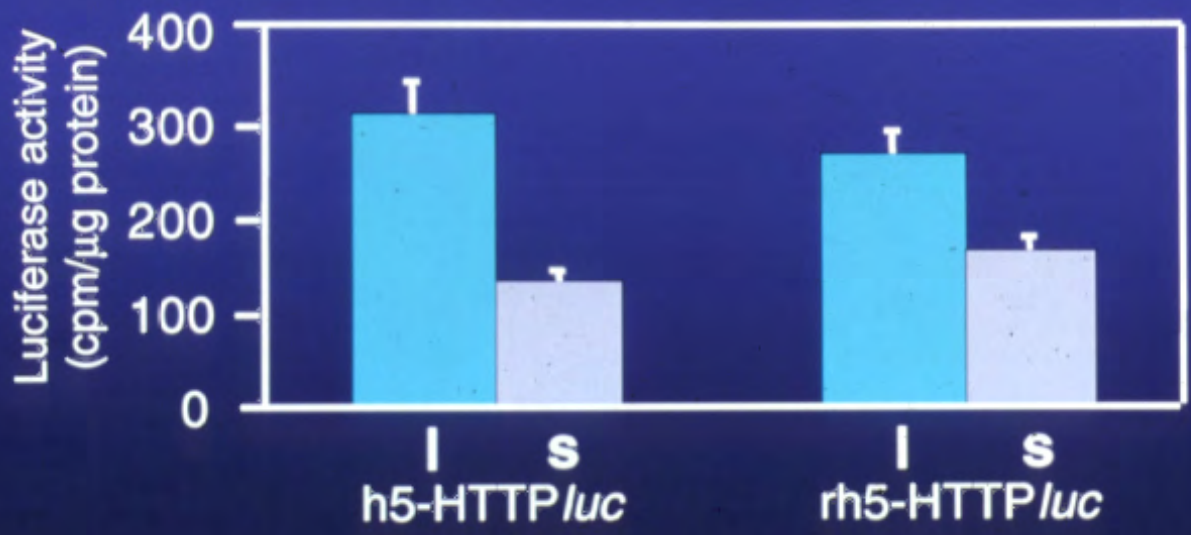
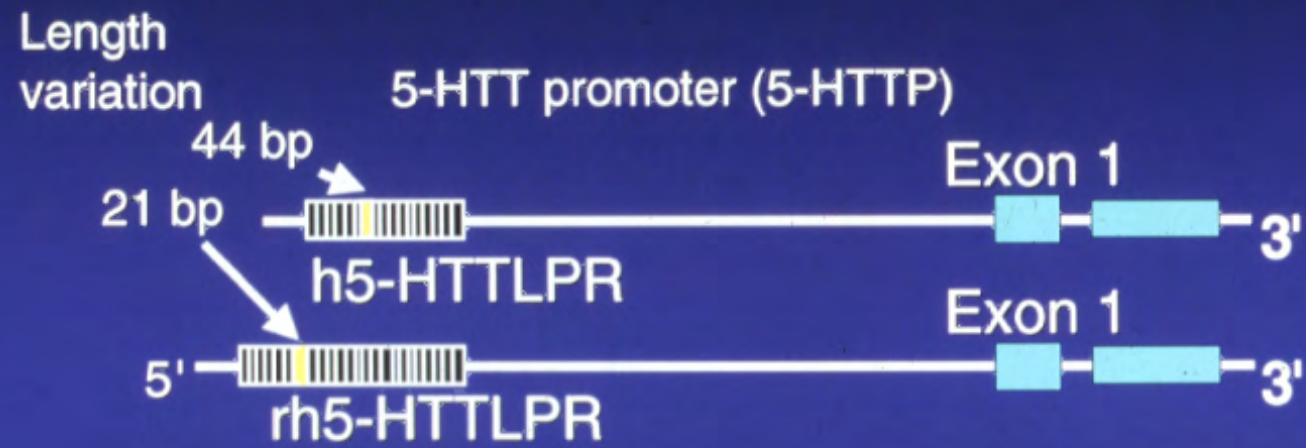


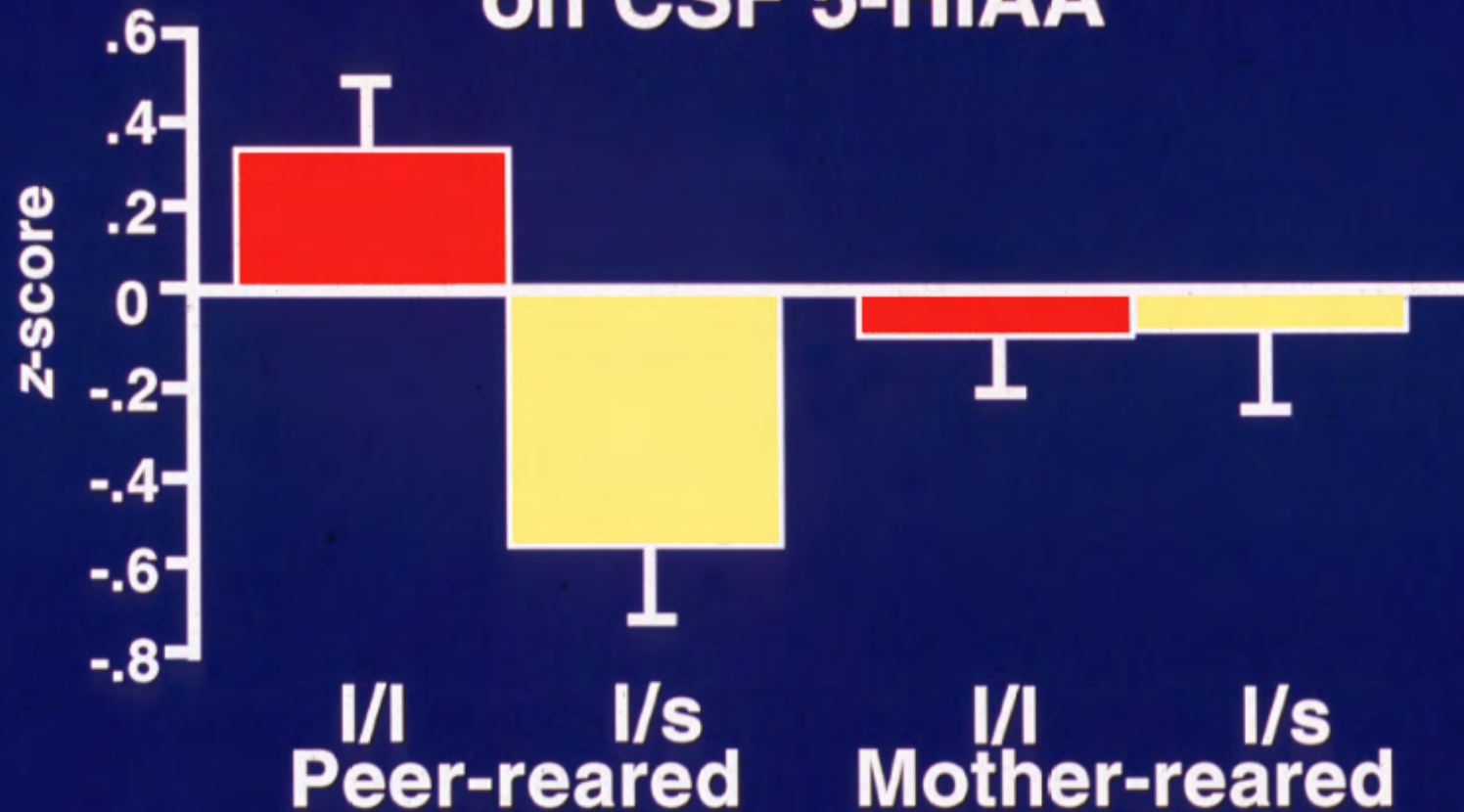
Figure 2 – Differential gene expression in leukocytes from Mother reared, Peer reared, and Surrogate/Peer reared Macaques



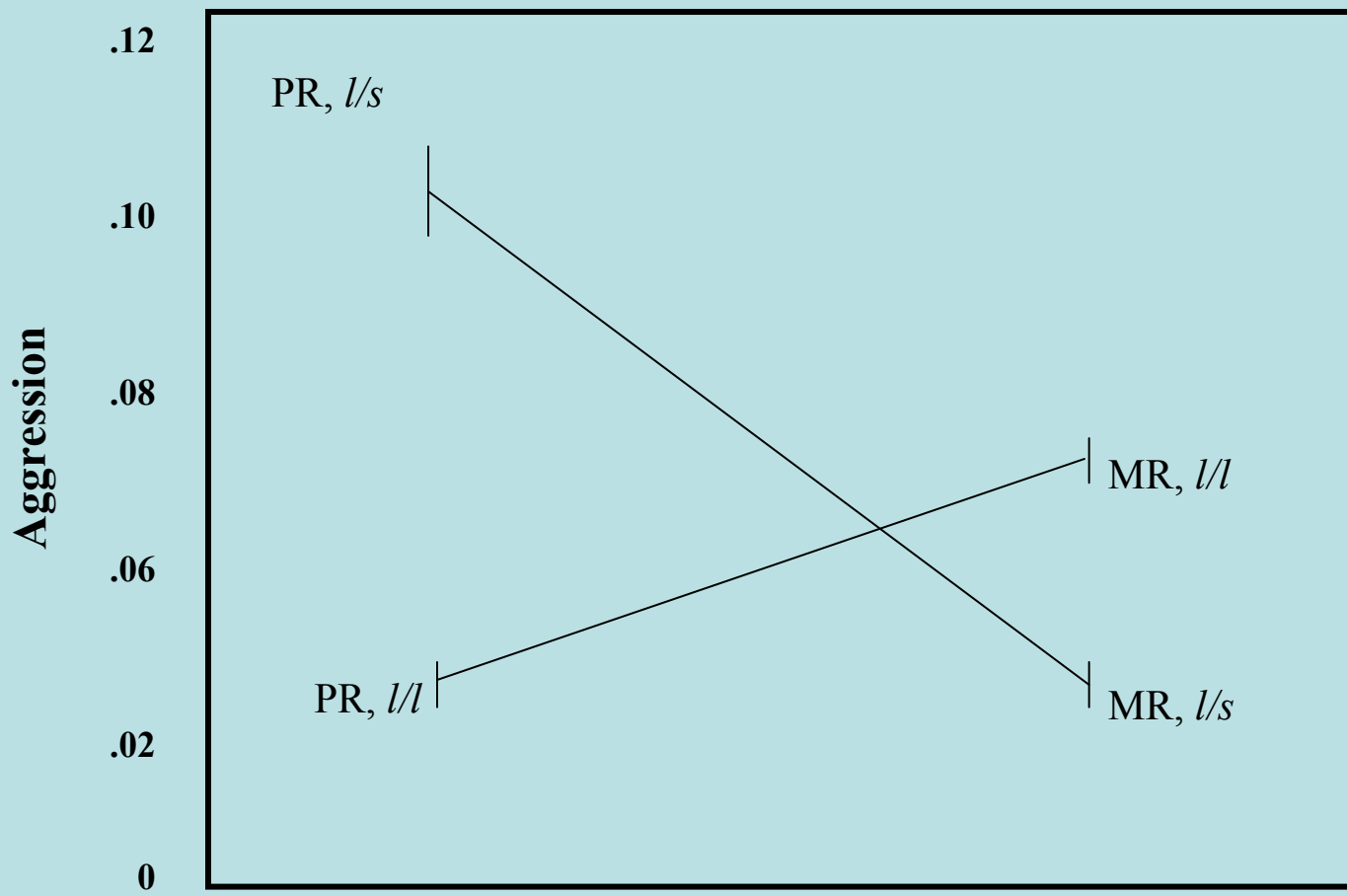
Transcriptional Activity of Human and Rhesus 5-HTTLPR Alleles



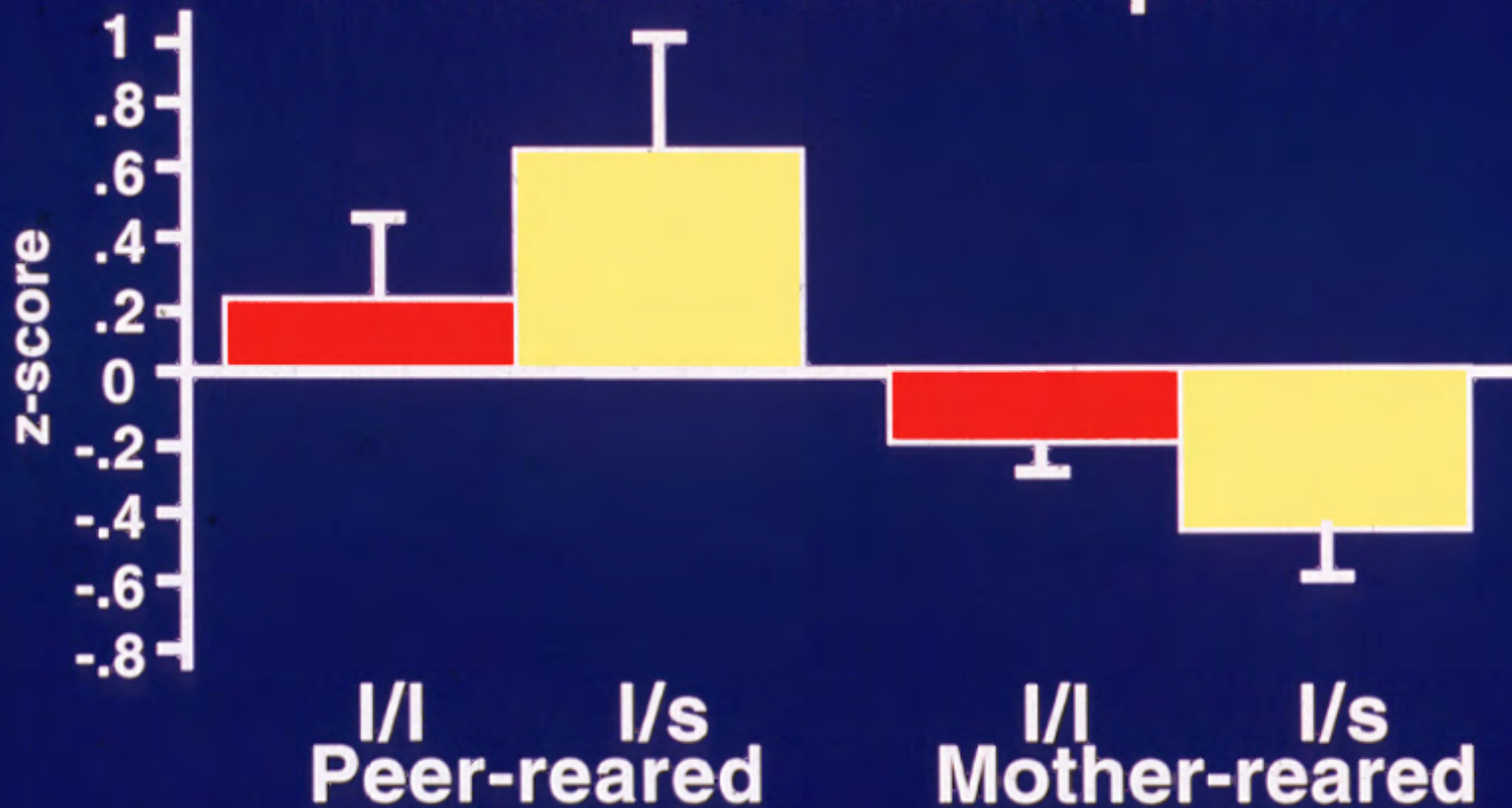
Effect of Rh5-HTTLPR Gene and Early Rearing Environment on CSF 5-HIAA



Bennett, Lesch, Heils, Long, Lorenz, Shoaf, Champoux, Suomi, Linnoila, & Higley



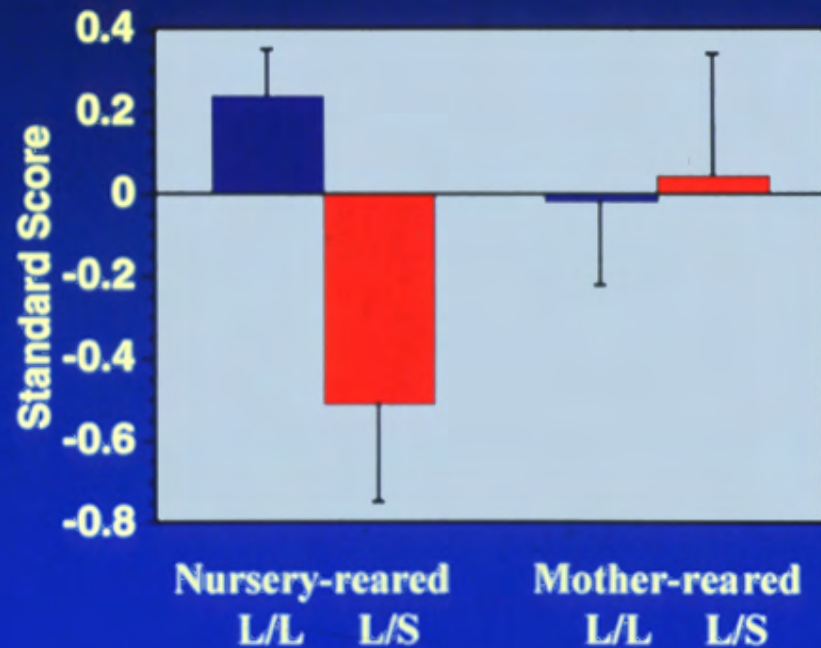
Effect of Rh5-HTTLPR Gene and Early Rearing Environment on Alcohol Consumption



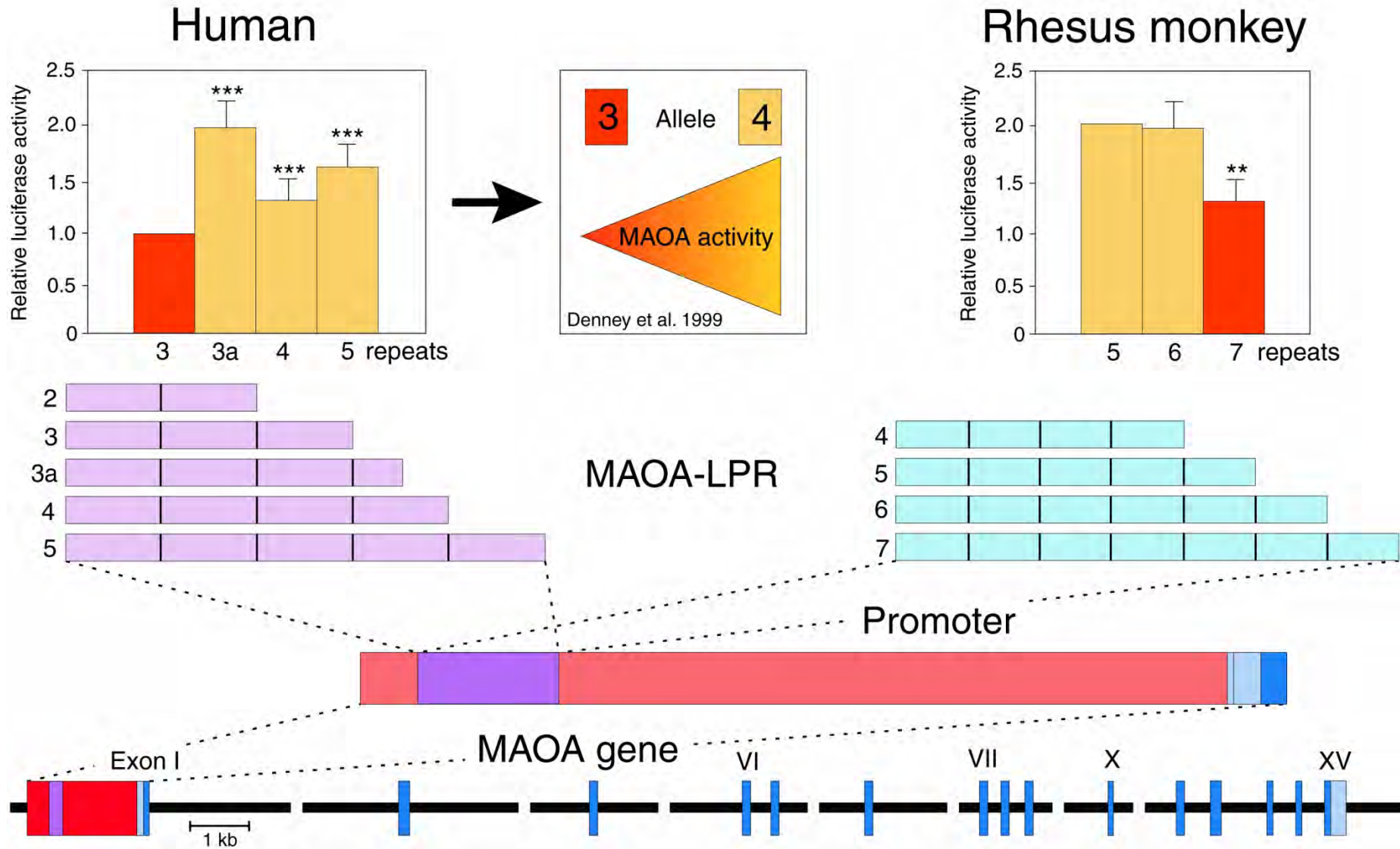
Bennett, Lesch, Heils, Long, Lorenz, Shoaf, Champoux, Suomi, Linnoila, & Higley



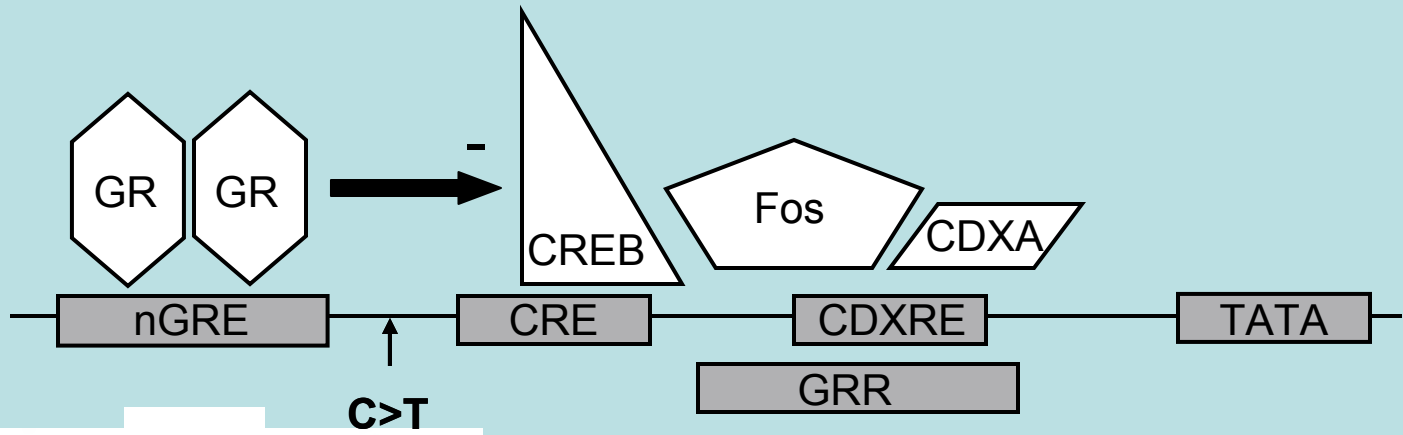
Orientation Cluster by rearing and genotype



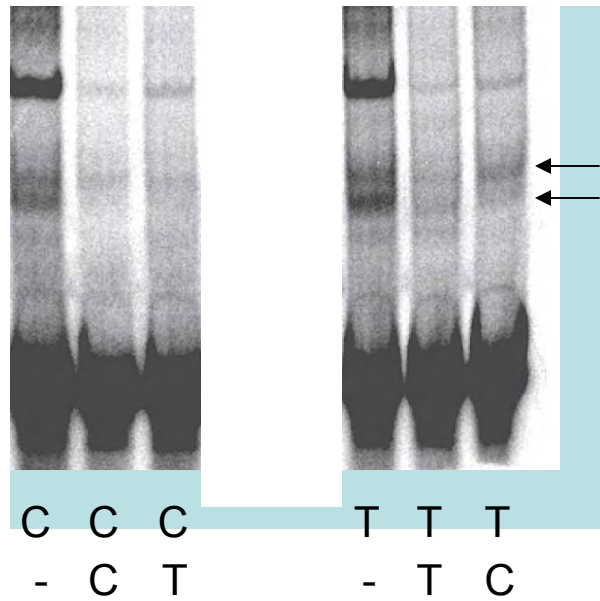
Variations of the MAOA gene promoter



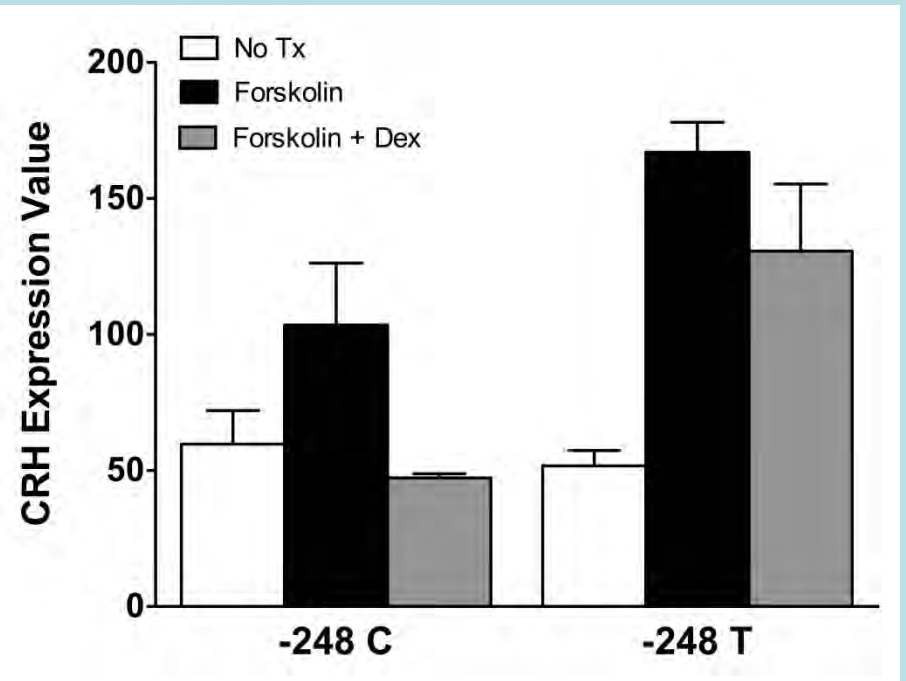
A

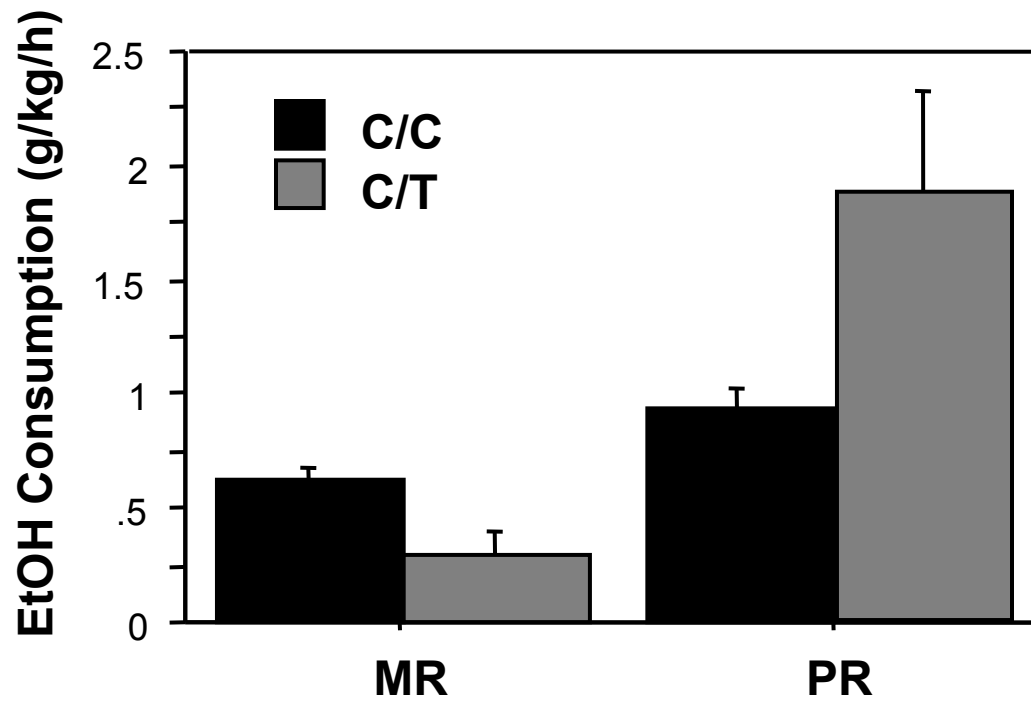


B



C





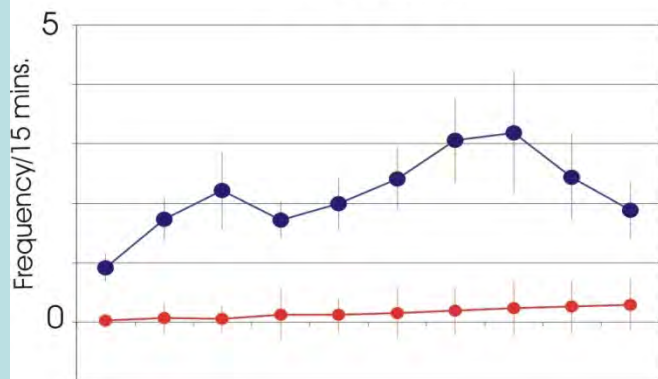




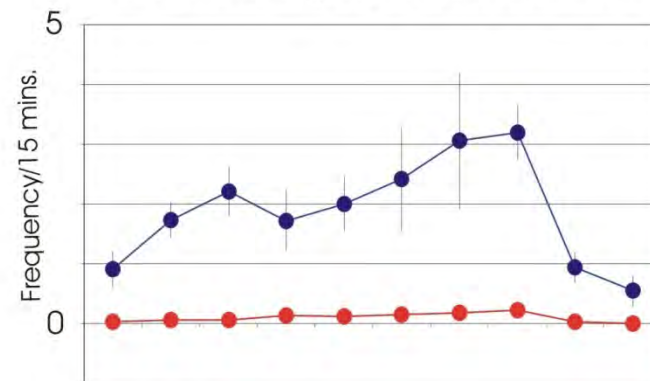




Mutual gaze

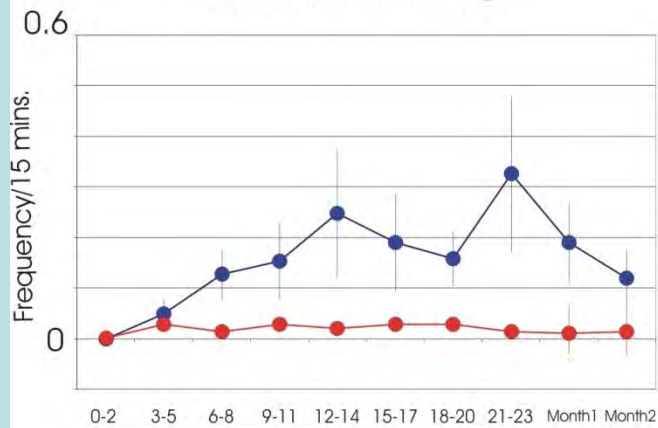


Lipsmacking received by infant

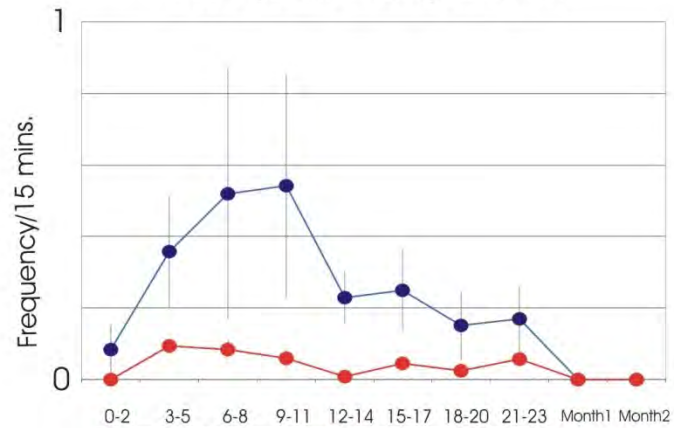


Type of pair
 — Mother-infant
 — Others-infant

Infant lipsmacking

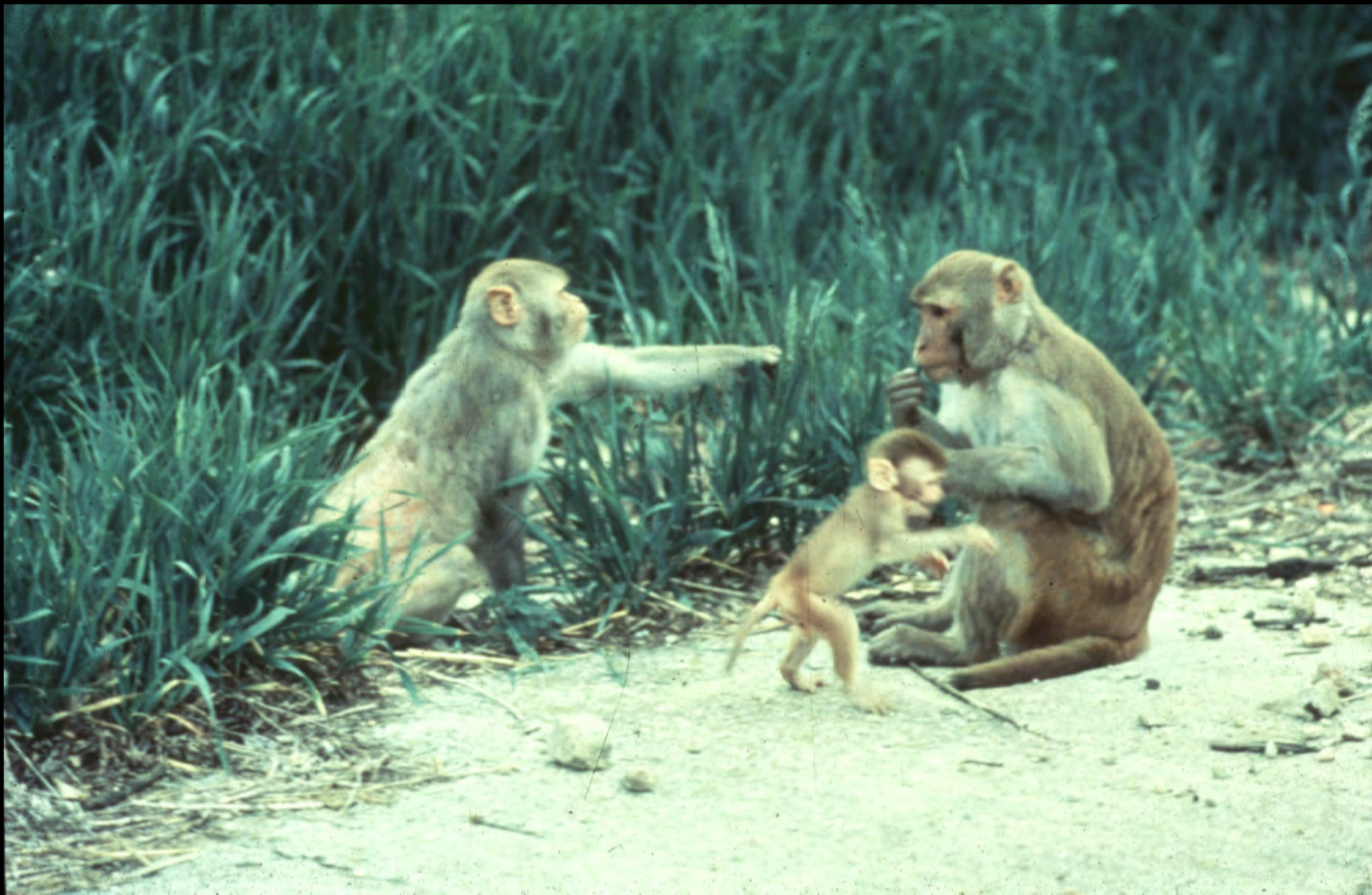


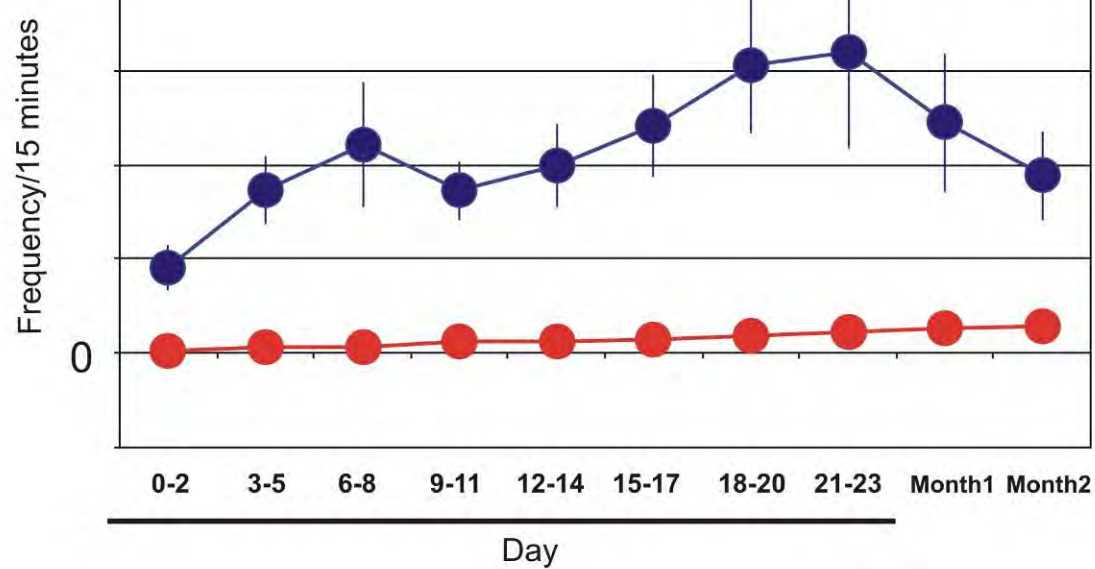
Infant lipsmacking in response to lipsmack



INFANT AGE

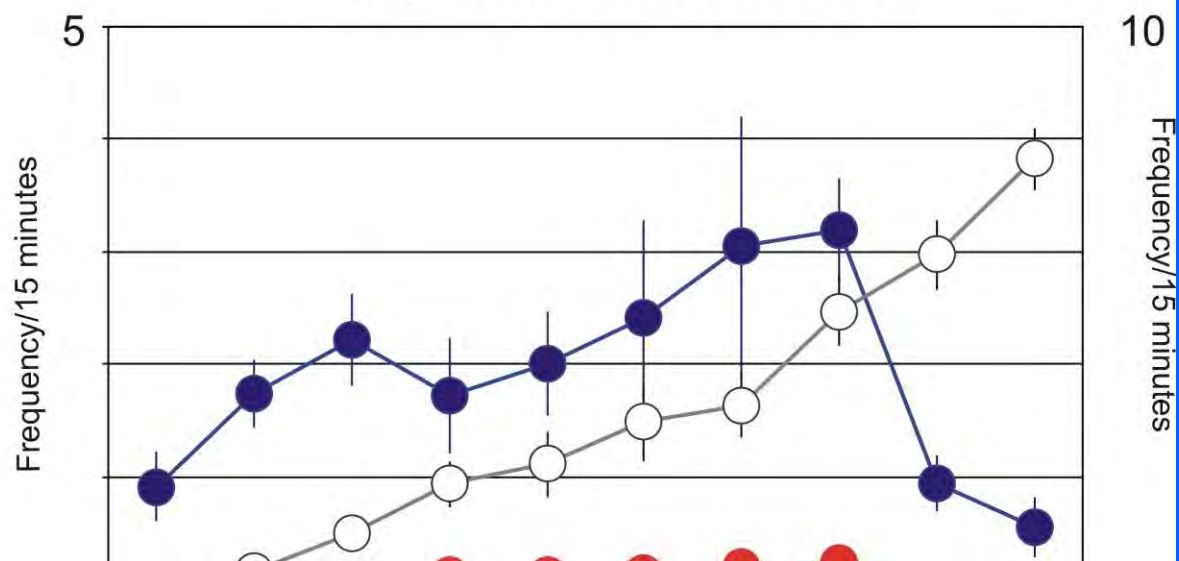
INFANT AGE





b

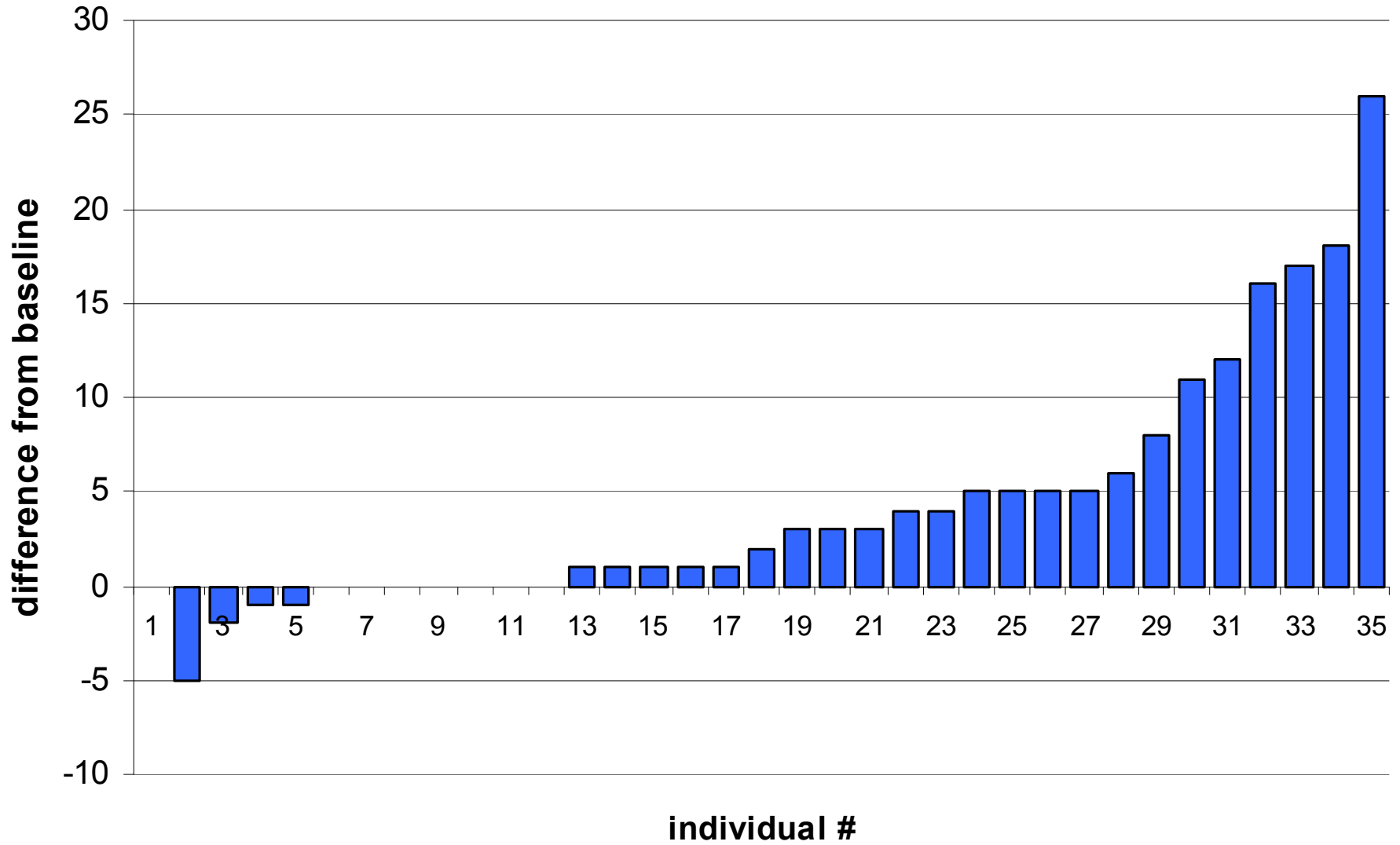
Lipsmacking received by infants and mother-infant separation







Lipsmacking imitation on day 3

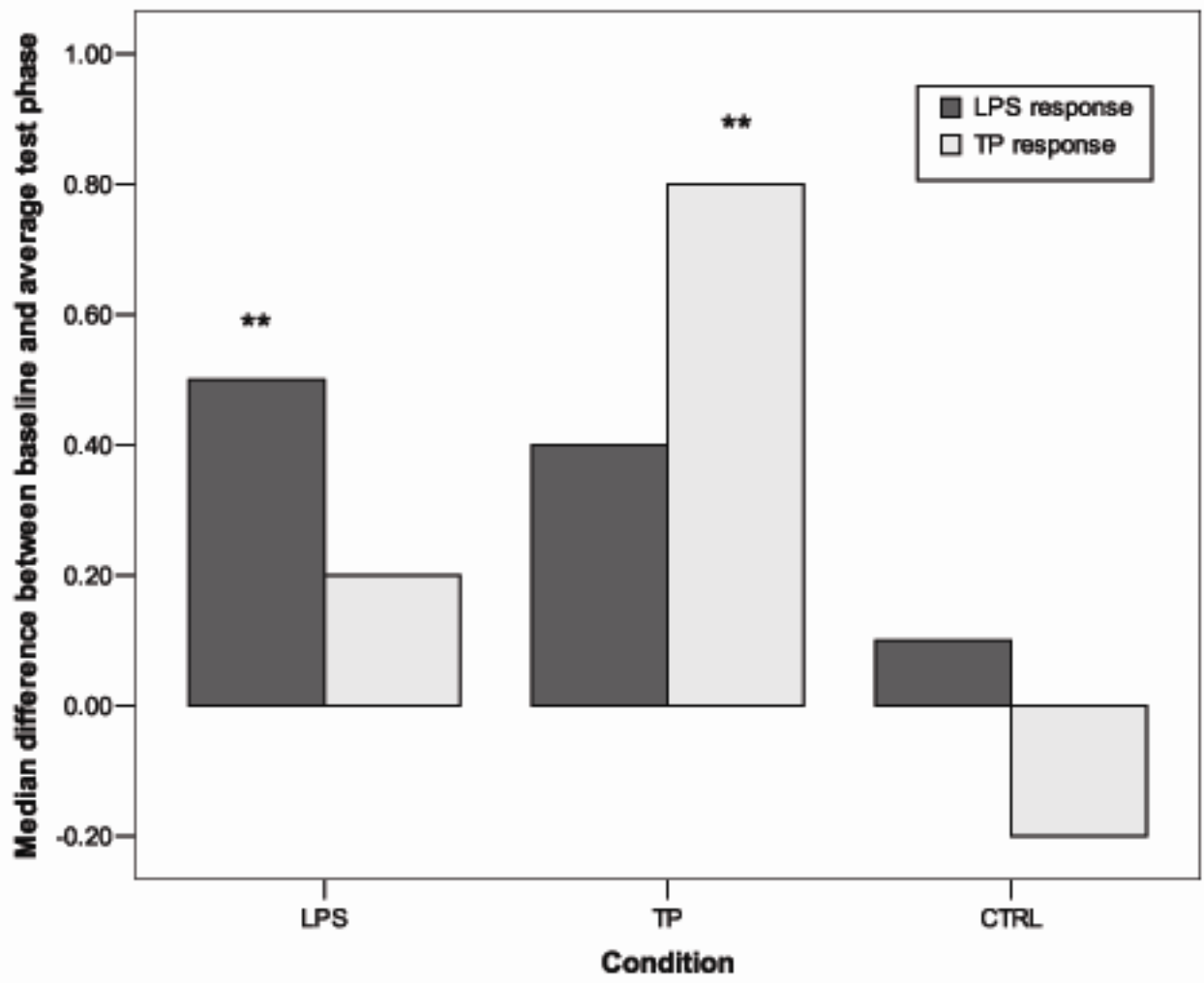


LPS

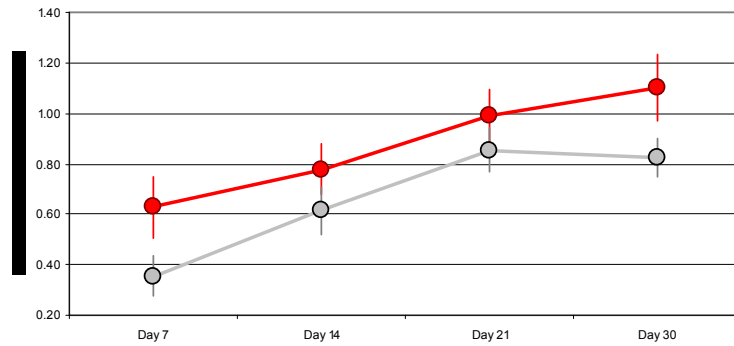


TP



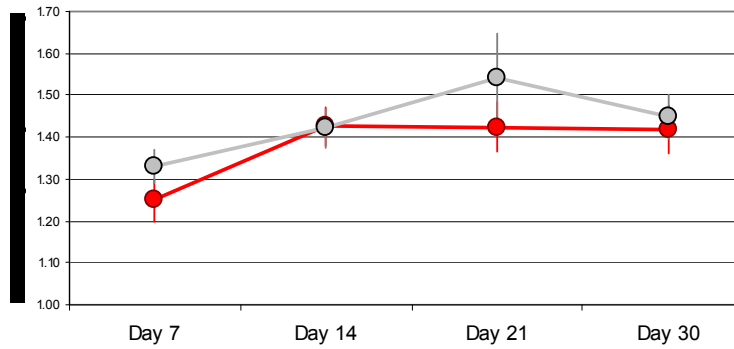


Coordination reach and grasp

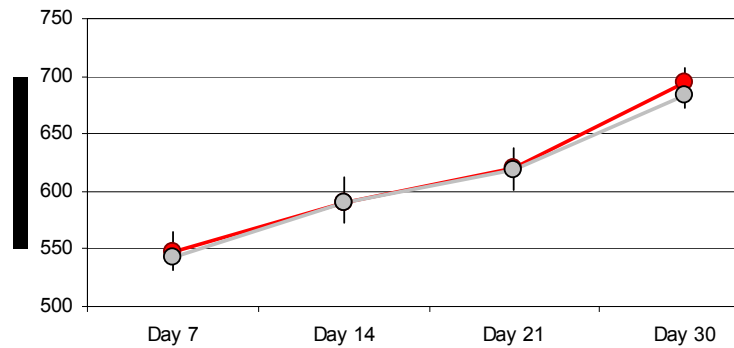


— IMITATORS
— NON IMITATORS

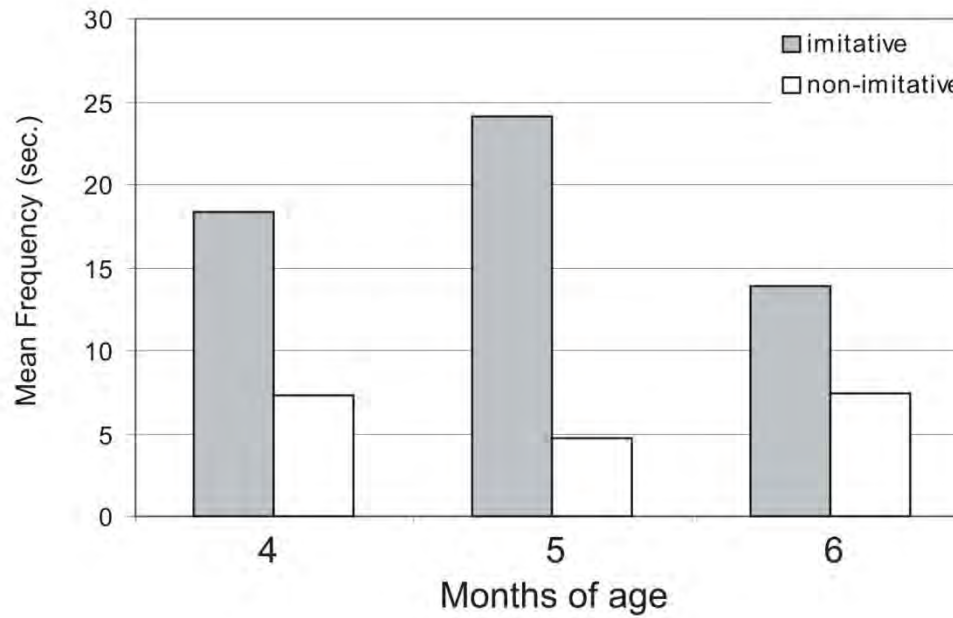
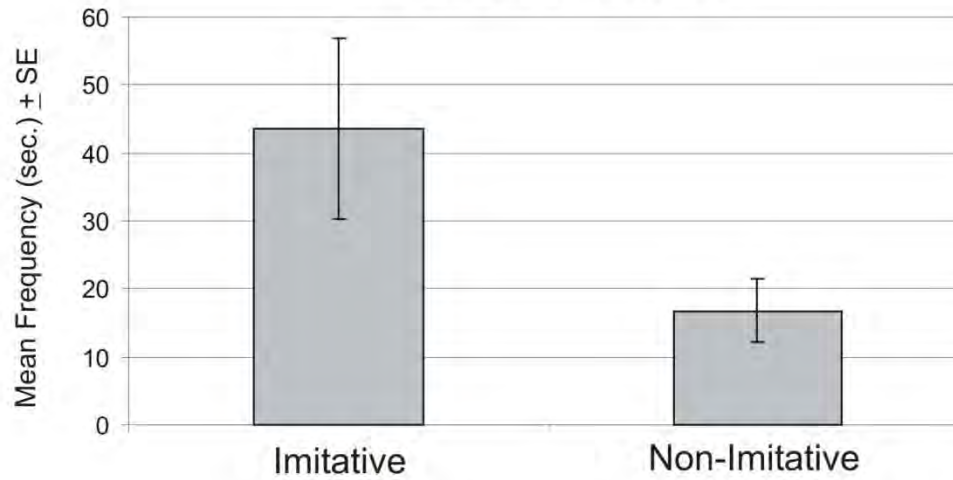
Motor Maturity



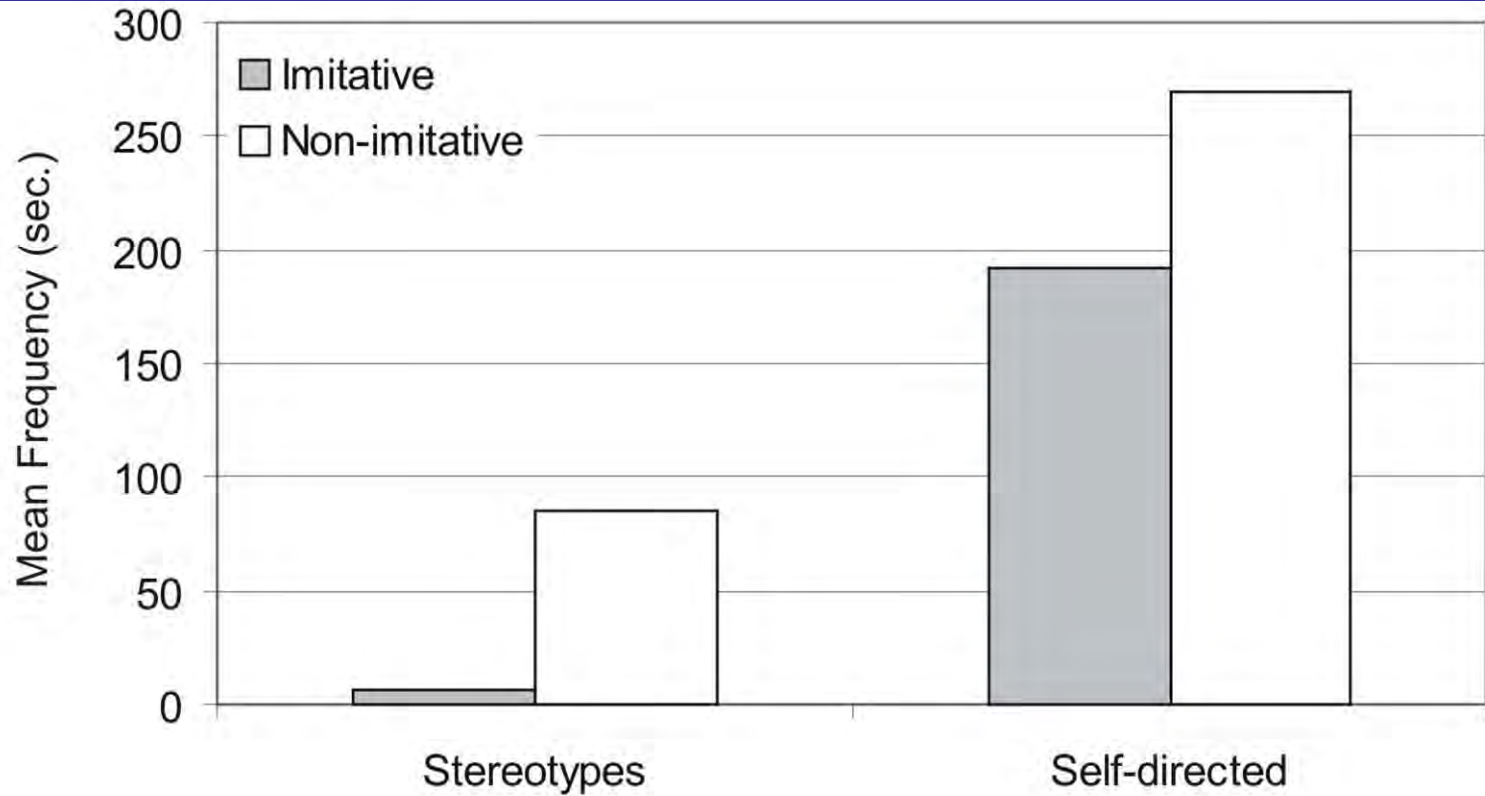
Body weight



Social play in 4-6 months old infant macaques



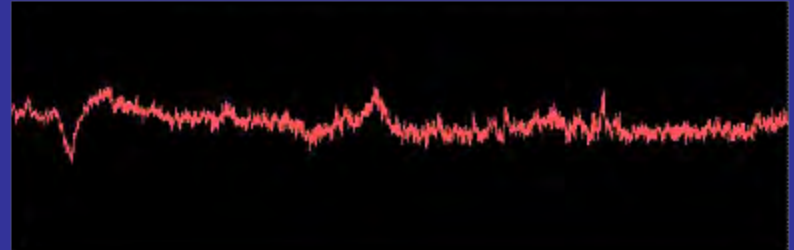
Stereotypic and self-directed behavior at 2 years of age



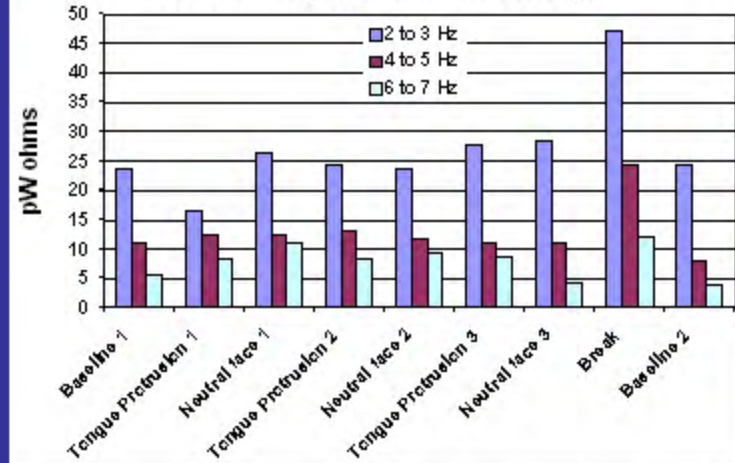




EEG signal in 6-day-old Male Rhesus Macaque

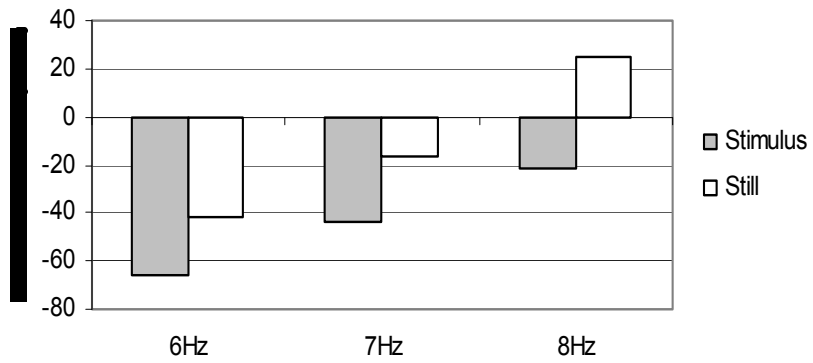


EEG Power 6-day-old Male Rhesus Macaque

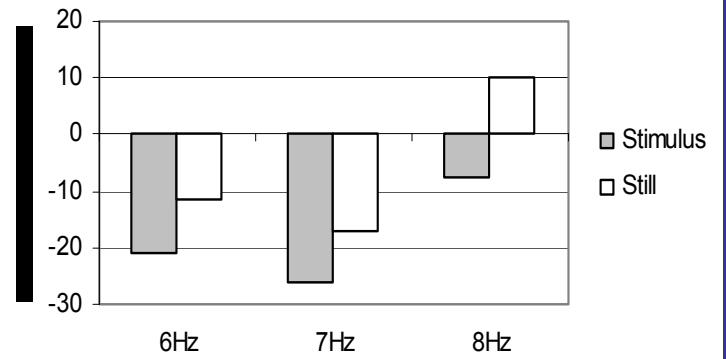




ZF43 Lipsmacking Day 6



ZF50 Lipsmacking Day 3





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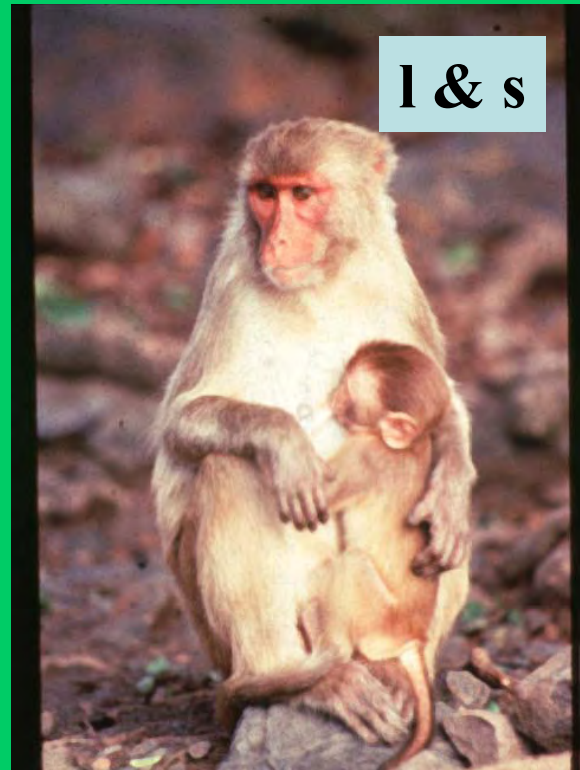
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