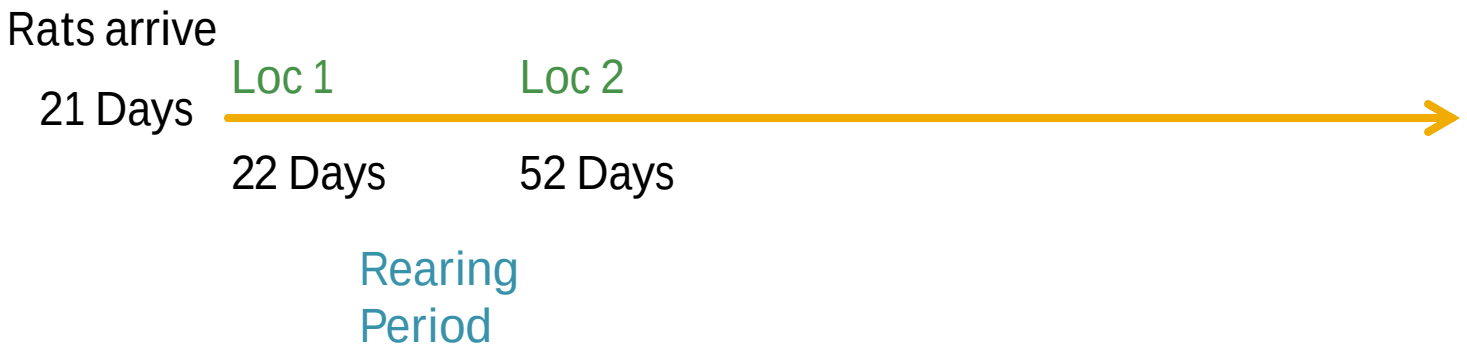
Environmental enrichment during rearing produces a variety of neurobiological and behavioral changes:

Environmental enrichment appears to ÐÒÏÖÉÄÅ Á ÔÐÒÏÔÅÃÔÉÖÅ ÅÆÆÅÃÔ ÁÇÁÉÎÓÔ addictive behaviors

Rats arrive

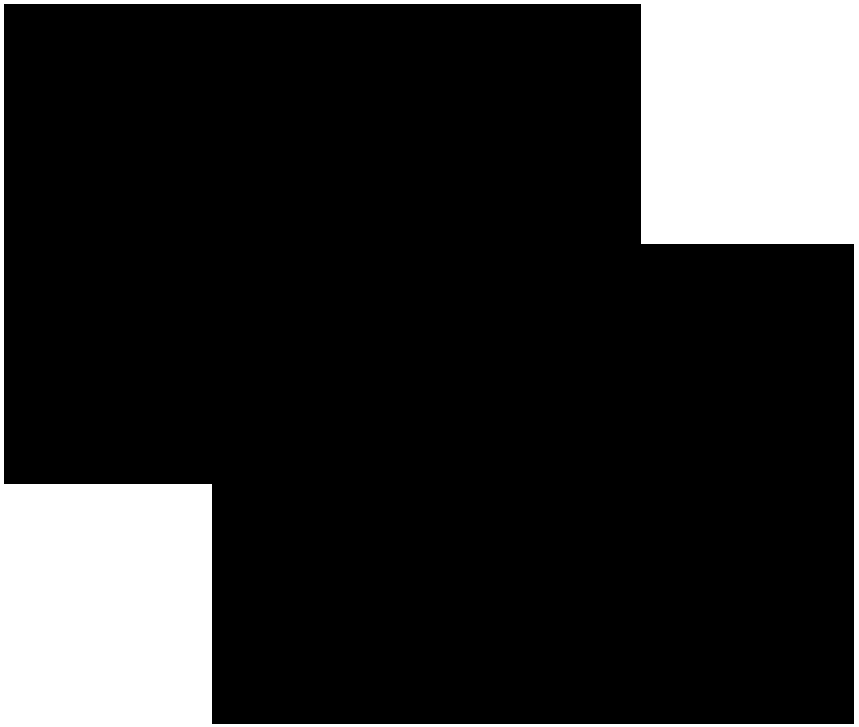
21 Days

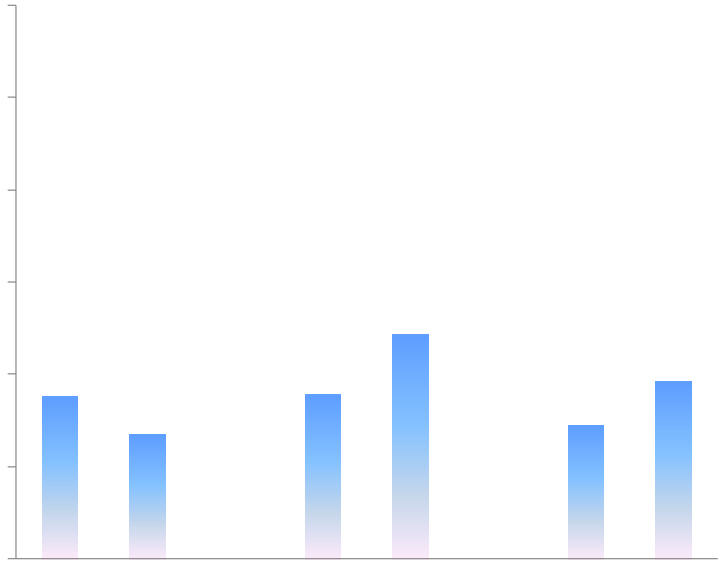
Rats arrive
21 Days
Loc 1
22 Days
Rearing
Period


Rats arrive
21 Days
Loc 1
Loc 2
22 Days
52 Days
Rearing
Period

Rats reared for 30 days

- Enriched Condition (EC, n=8)
- Standard condition (SC, n=8)



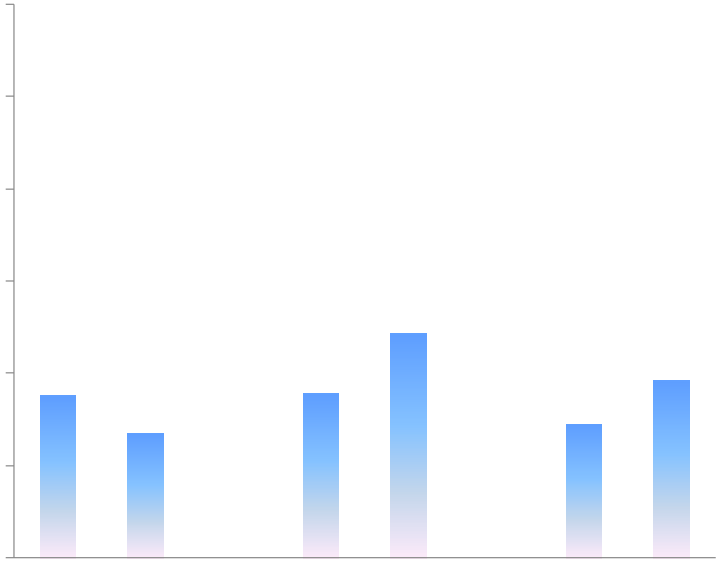


No group differences prior to rearing period

EC decreased locomotor activity

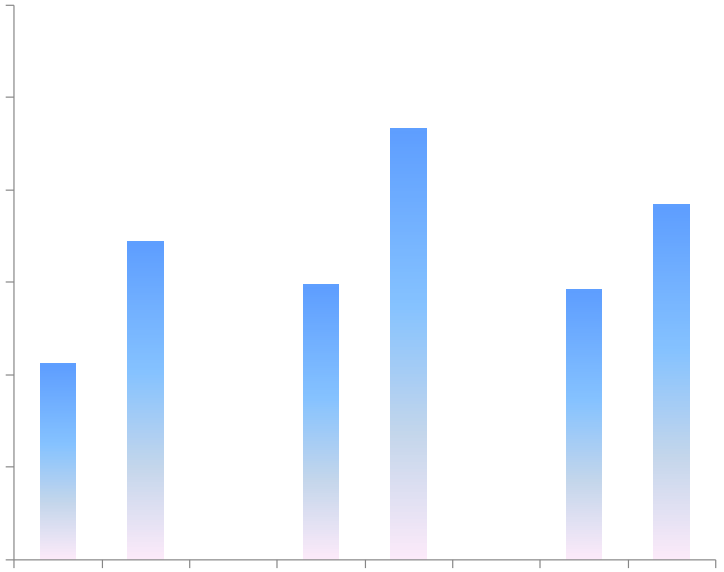
IC and SC increased locomotor activity

Interaction between rearing condition and test (LOC 1 vs. LOC 2)

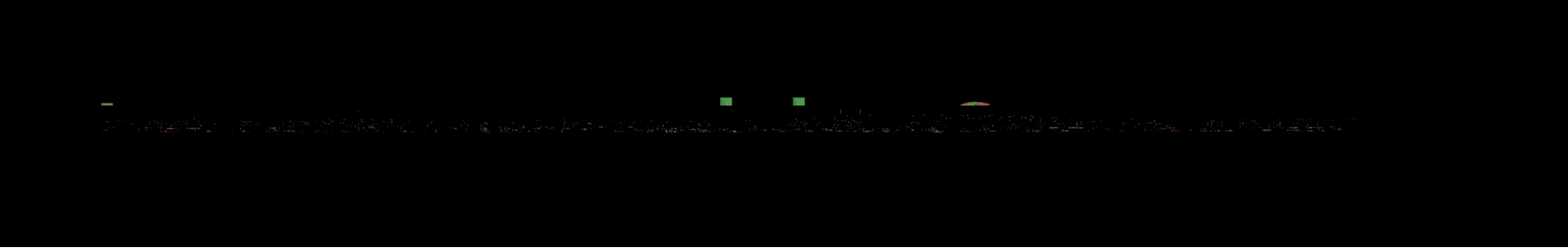


21 Days Rats arrive 22 Days Loc 1 g2 Days

Loc 1
22 Days
52 Days



Comparison of LOC 3 (SAL) and LOC 3 (AMP). *f* AMP increased locomo



Discrete-trial, two-lever, VI 30-s schedule

- Only one lever inserted at a time
- 120-s Inter-trial interval

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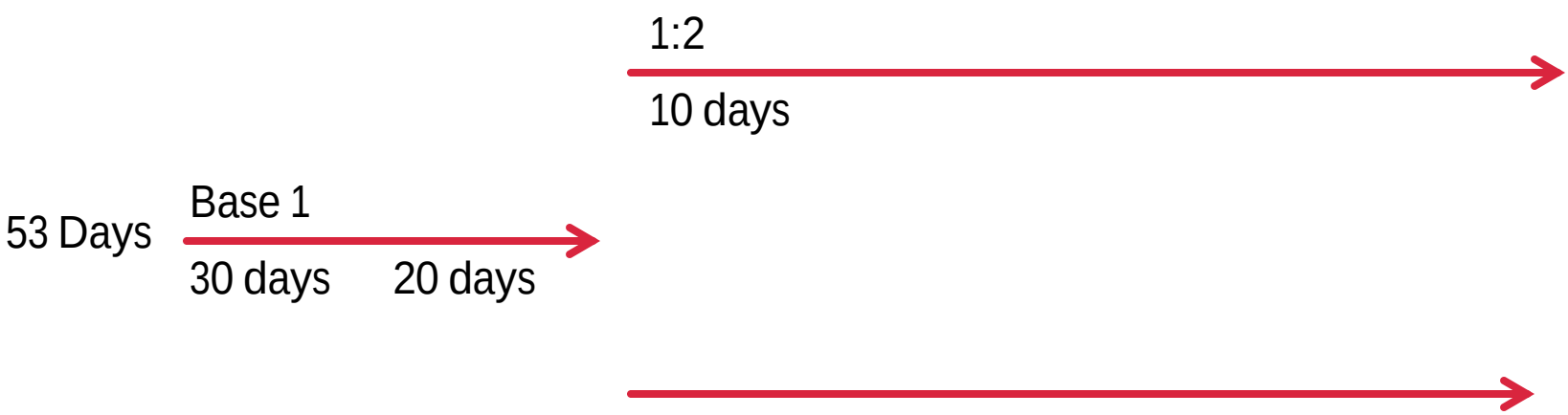
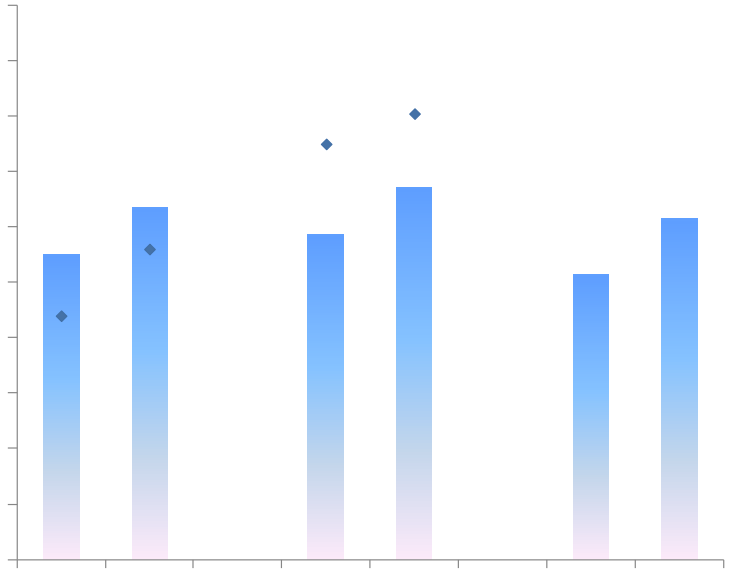
SM

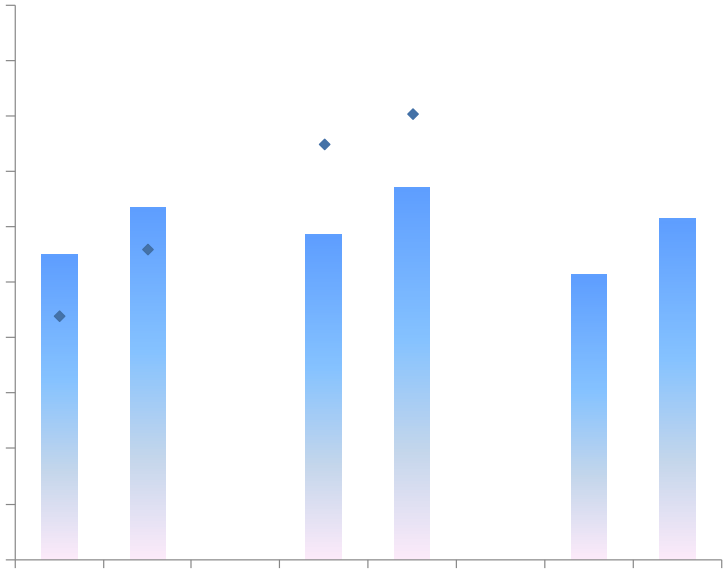
LG


1:2
10 days
53 Days
Base 1
30 days
20 days

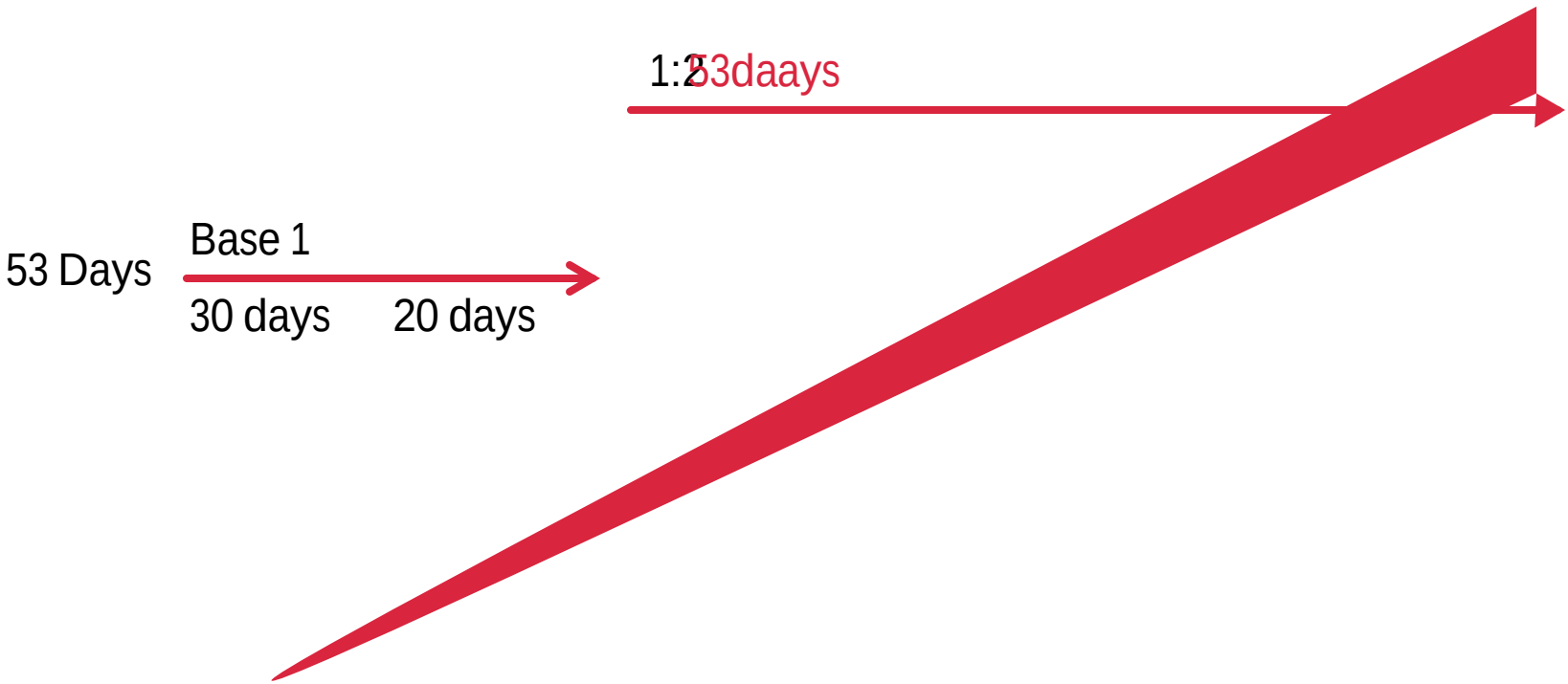


All enrichment conditions showed an induction response on the LG lever

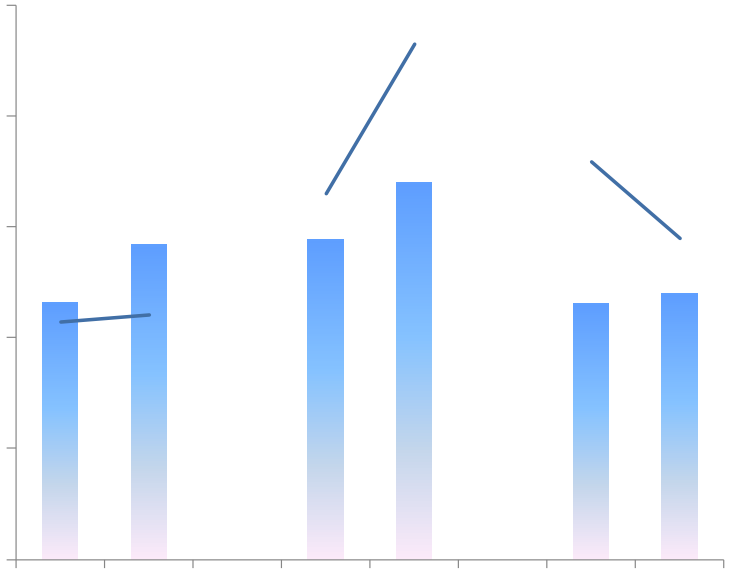
- Sensitivity to increase



53 Days


1:2 53daays
53 Days
Base 1
30 days
20 days

EC and SC rats increase their SM response when SM reward is increased from 1 to 2 pellets



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- This may be due to:

Ana Garcia and Angela Crumer for help in running the experiment

Andrew Marshall for help with data analysis

Kansas State University USRG program for funding