The what and where of operant self-learning: PKC53e necessity in motorneurons ?

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FONDS NATIONAL SUISSE
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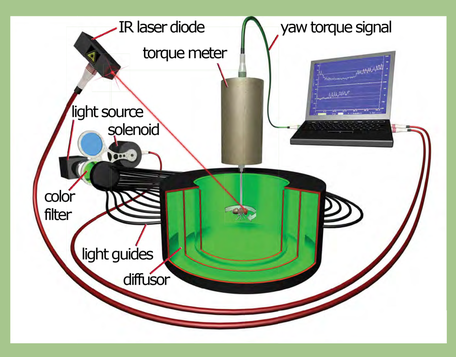
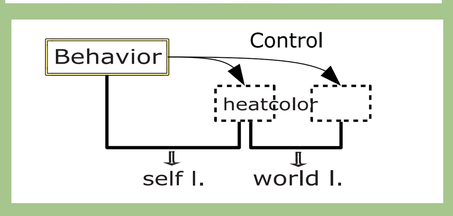
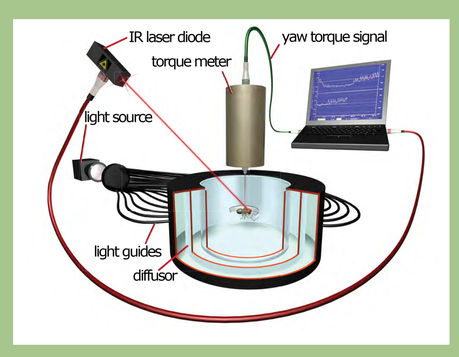
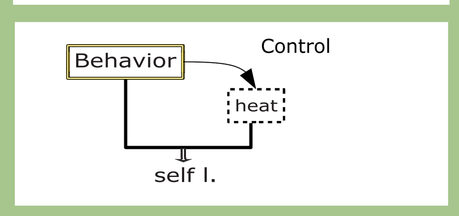
world-learning is rutabaga dependent



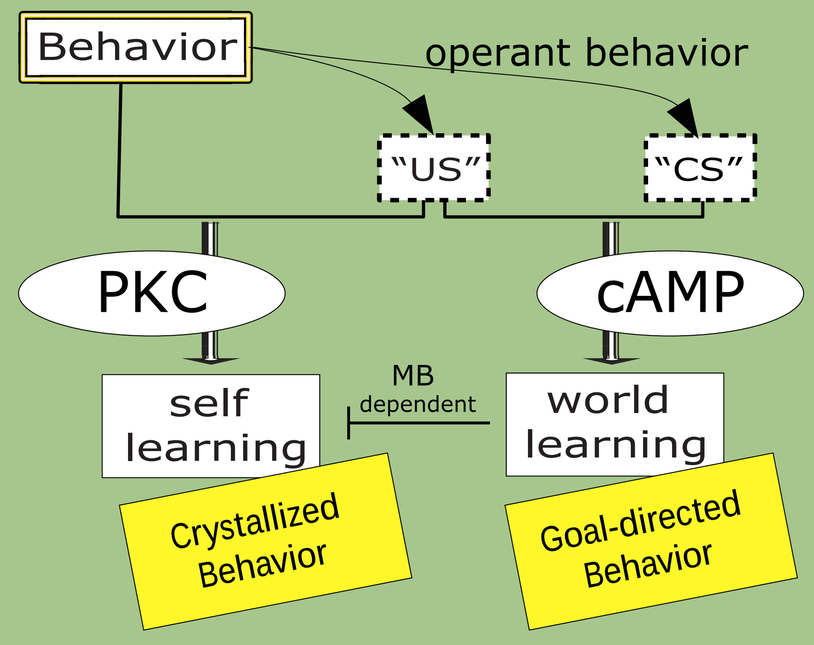


self-learning is PKC dependent

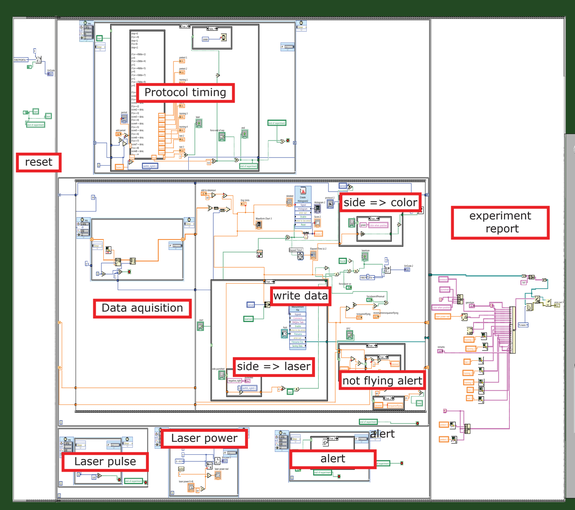




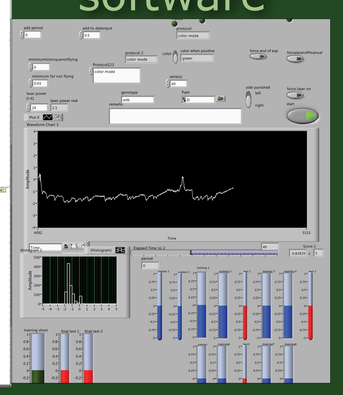
world- and self-learning interact during operant conditioning

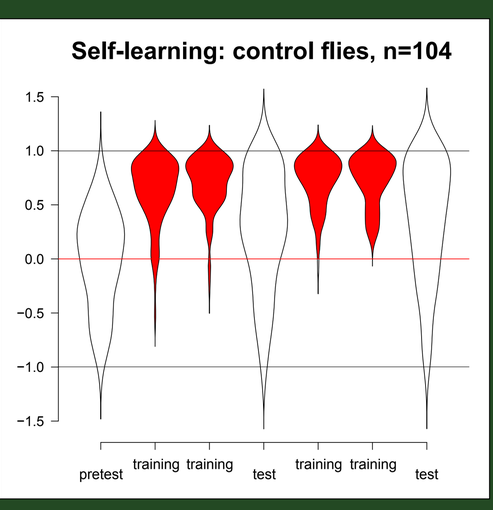


Colomb J, Brembs B. The biology of psychology: "Simple" conditioning? Communicative & integrative biology. 2010;3(2):142-5



Labview software

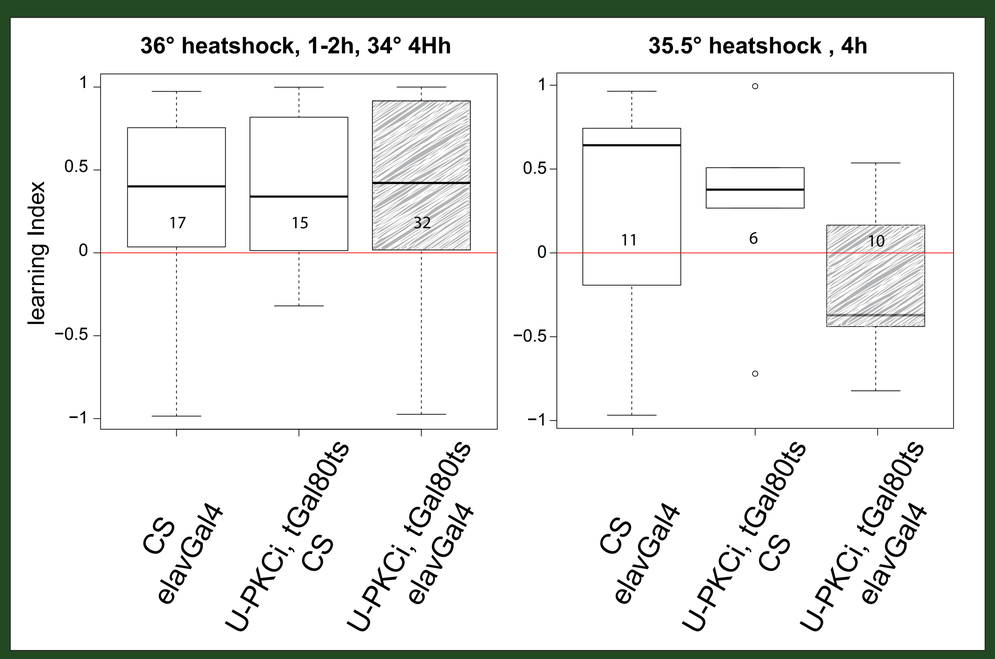




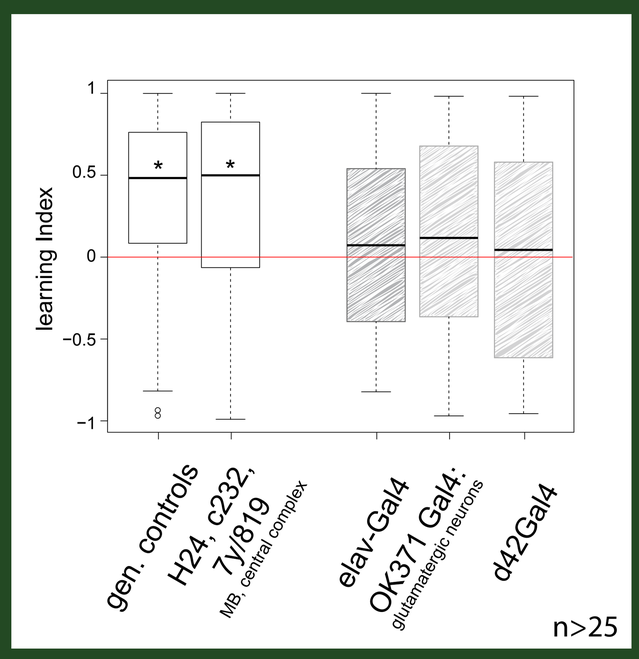
The where: Localisation using the TARGET system

heat shock protocol:

tub-Gal80ts;UAS-PKCi x elav-Gal4 lines

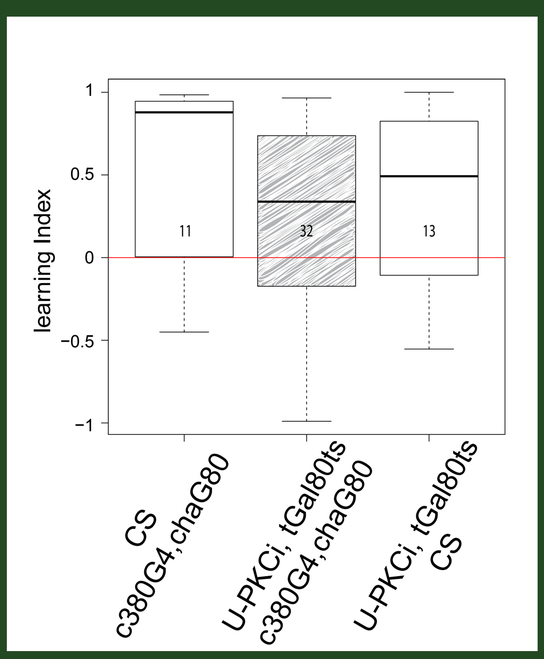


Gal4 lines screen



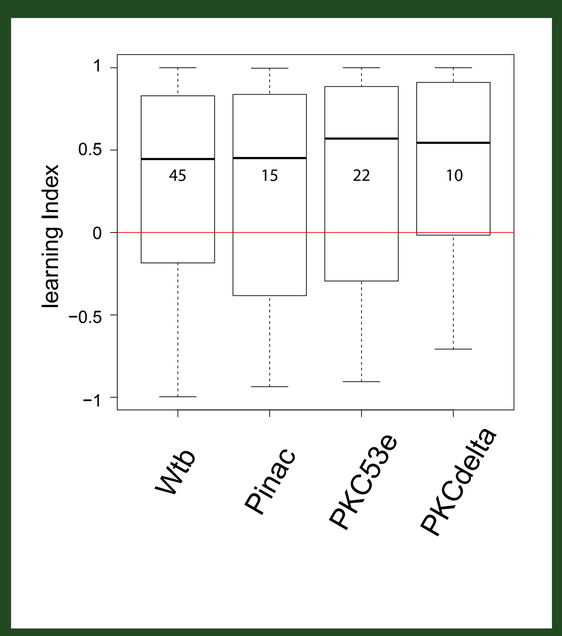
motorneuron line

tub-Gal80ts;UAS-PKCi x c380-Gal4, chaGal80

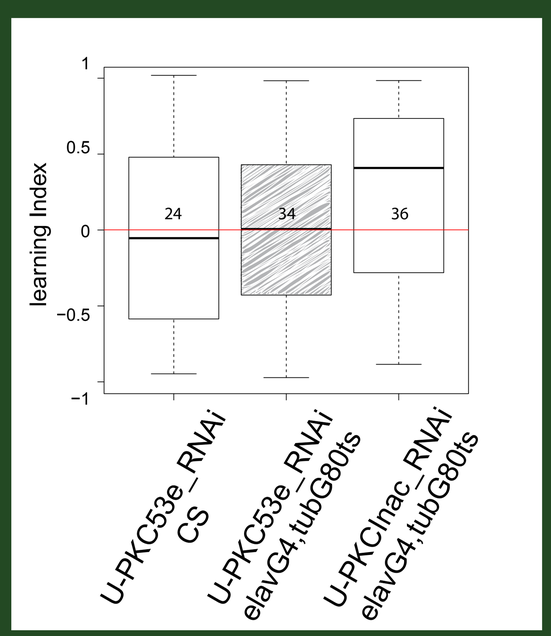


The what: PKC53E as a candidate

Putative mutants: no phenotypes



RNAi using the TARGET system



OUTLOOK

The where:
- Get an answer for c380 positive neurons
- Test d42Gal4;chaGal80 driver
- Localize d42+ and c380+ glutamatergic neurons

The what:
- Outcross and test the RNAi driver again
- Test new PKC53E mutants

NEXT:
- Test electrophysiological properties of motorneurons lacking PKC53E