Title:	Investigating the Role of EXP-1, a Cation Selective Excitatory GABA Receptor in Chemotaxis Towards Volatile Attractants
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Abstract:	C. elegans can sense a variety of volatile as well as gustatory cues through its highly developed chemosensory system. In this project, the role of a cation selective excitatory GABA receptor in chemotactic response to various volatile chemicals was investigated. Interestingly it was found that loss of function mutants of exp-1 avoided isoamyl alcohol, an attractant for wild-type worms. When the response to other volatile attractants was investigated it was noticed that the particular set of attractants sensed through AWC amphid sensory neuron was being avoided. Upon performing pan-neuronal (using promoter for rab-3) rescue for exp-1 mutants phenotypes, it was to found that exp-1 mutant related phenotypes were partially rescued which confirmed that altered chemotactic response of exp-1 mutant was a neuronal defect. Further other behaviours those are triggered by AWC neuron – reversals and omega turns (Ω) were observed. They were also found to be defective confirming the essential role of EXP-1 in AWC neuron-dependent phenotypes.
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