Initial Observations of Fruit Fly’s Flight with its b1 Motor Neuron Altered\textsuperscript{1} Z JANE WANG, JAMES MELFI JR, Cornell University — Recently we have suggested that one of the fly’s 17 steering muscles, the first basalar muscle (b1) is responsible for maintaining flight stability [1]. To test this, we compare the flight behavior of normal flies with genetically modified flies whose motor neuron to the b1 muscle is silenced. We report our initial observation of the difference and similarity between these two lines supplied by Janelia Farm. We also discuss the basic question for quantifying flight, what makes a good flier? Reference: [1] S Chang and ZJ Wang, Predicting fruit fly’s sensing rate with insect flight simulations, PNAS, (2014)

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