

Davis and Goodman Questions:

1. Why the authors bother crossing UAS-FasII flies with different Gal4 lines? Why they did not make transgenic flies just express FasII under some promotor? You can avoid crossing those flies each time you need them.
2. They measured excitatory junction current (EJC). What is this? How do you record this? What necessary equipments for recording this? How was response evoked?
3. They also measured miniature excitatory junction current (MEJC). What is this? What is the difference in recording configuration from EJC?
4. How do you calculate quantal size and quantal content?
5. Please summarize the factors that determine the size of quantal size or content.
6. In figure 3, they did even another type of recording from single boutons. What is the difference of this recording compared with EJC and MEJC recording?

Hint to 2-5. This is heavily based on quantal hypothesis of synaptic transmission. If you have never heard of it, the following reference should be helpful. "From Neuron to Brain (4th ed) pp. 206-213". If you want a copy, please come to my office.