

3090 Pre-Class Paper Discussion

(Kevin helped moderate the discussion, while I kept mostly silent)

□ As of 11:54, discussion has been chiefly led by Max, Anthony and Omar (Shahin has asked a few clarifying questions)

□ Overall confusion about what analog vs. digital is (e.g. no one understood the notion of 'bit depth')

□ Max made attempts to get the discussion away from A-D and back to the paper (© 11:58)

⊛ Rachel raised the point that as a 'biologist', it is easier reading 'secondary' literature (as this paper is) than 'primary' literature

□ Omar raised an excellent point about why mixing digital altogether for analog would be far from ideal

□ As of 12:07, Kevin asked a good question re fast-inactivation K^+ channels (are they the same as the K^+ pathway in the Htt model?) which launched a good discussion point forward

□ Max/Zohreh got into a discussion based upon her Htt presentation (!)

□ Overall, though Mahmoud did engage, his points seemed relatively superficial

4/3/13

Particip.
fraction

Rachel: ### III

~~0.47~~
0.47

Anthony: ### ### ### II

~~0.47~~
0.47

Max: ### ### ### ### II

1

Shahin: ### II

0.41
~~0.47~~

Omar: ### ### ###

0.88
~~0.47~~

Mahmoud: ### III

0.53

Radhika: ### II

0.41

Zohreh: (not present; arrived © 11:41)

III

0.18

- Zohrah raised a discussion point about the nature of vesicle release
- Shahin (as of 12:14) only contributed clarifying questions)
- As of 12:20, discussion had focused on specifics of ions rather than of more general physical considerations → focused on Ca^{2+} role
⇒ Rachel raised a good point to help try to clarify things for Anthony
- (12:24) Max raised the question about mechanisms of vesicle formation
- (12:26) Omar steered the discussion in the direction of ADF/synaptic strength/plasticity
→ he got really engaged into the notion of 'synaptic strength'
- Rachel did chime in a lot, but when she did her comments had substantial substance
- Max went on a bit of a tangent as to how a 'brain' compares to a 'computer'
→ launched into a discussion of memory (and connections back to synaptic strength)
- In general when Mahmoud's raises point, I don't understand what he is getting at (is it because he doesn't understand what he's saying?) → not clear how deeply things sink in for him
- Max brought in the eye re graded potentials

- I raised the point (at 12:45) re Fig. 1B that the distinction between analog and digital depends upon the spatial scale one looks at (ie. the blue EPSC curve is 'analog' at the ~~continuous~~ macroscopic level, but is 'digital' when you think about the individual vesicles that contribute at the microscopic level)
→ think back to the 4/2 lecture on ion channels in a large # limit

Overall

- discussion was civil
- no one used board to clarify ideas/concepts

GRADES - everyone participated and contributed something, so baseline grade will be 50%
- will use # of comments normalized re max (use Anthony w/ 17 comments as ref.)
- will use written summaries to deduce