Also - I'm wondering if it might look cleaner for figure 3 if we just showed ON and OFF (rather than all the different levels). With this new data, the different step wise levels don't add as much as before and it makes the figure more complex. If we collapsed all the ON stim results it might look cleaner and then we could probably plot everything on less overall plots (maybe showing 8-9 and 10-11 on the same plots) so that it would be a 2 by 2 rather than a 2 by 3.

I think we then need to think about stats and whether we can display this on the graphs (and in the results section).

Do you want to have a go at repeating the stats on the updated results (with multiple comparison correction?) And see how it looks.

I think the problem is that everything is going to be significant so we will have to use a low p value cut off (0.01 at least) and aggressive multiple comparison correction (ie Bonferonni). If you wrote a loop.

Yes - the standard stats are pretty simple. I would do a simple unpaired t test (function is ttest2 in matlab).

You could write a loop to do that for every frequency (1:90) comparing ON versus OFF and then multiply the p value by 90 (which is the number of corrections). Then plot the resulting vector (of 90 p values) as a line plot underneath the main plot to see which frequencies come out as significant.

Let me know how you get on. I'm interviewing Friday (CRCs!) and am pretty packed. If you get stuck - let me know and we can see if we can squeeze in a quick call to unstick?