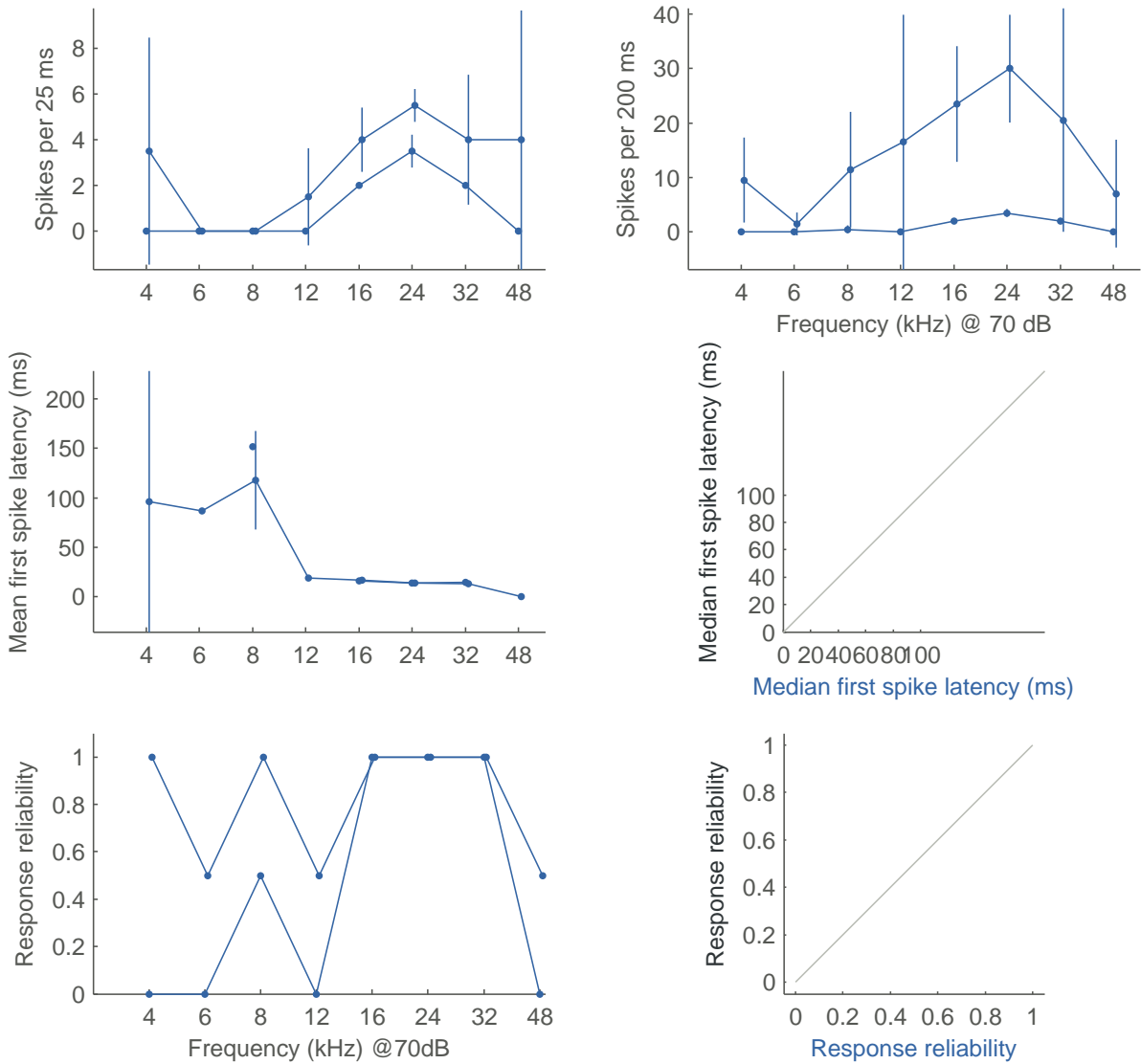
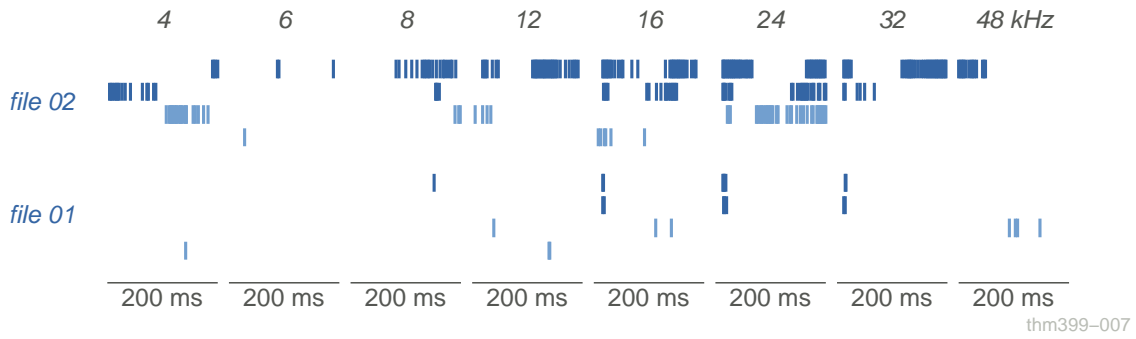
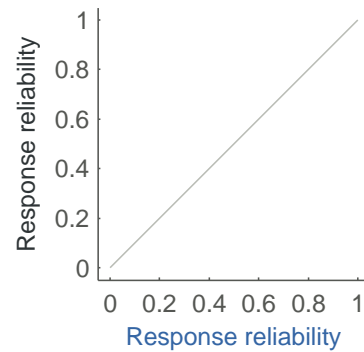
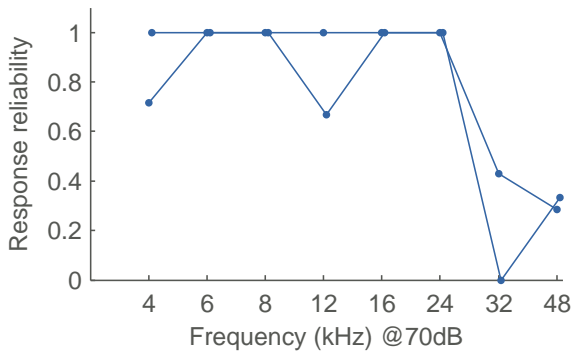
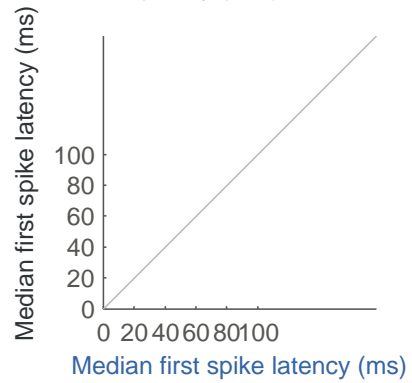
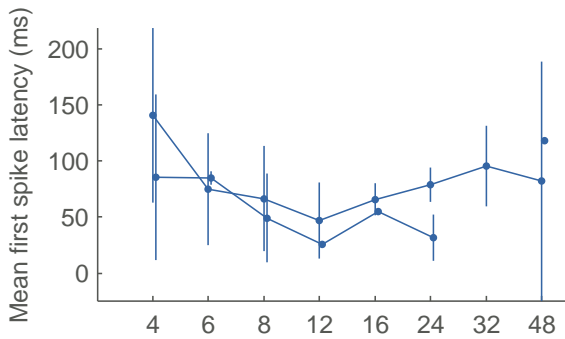
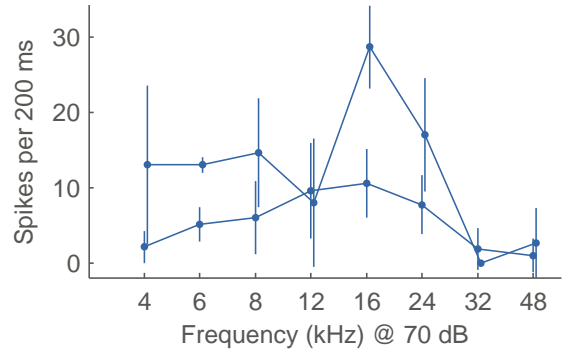
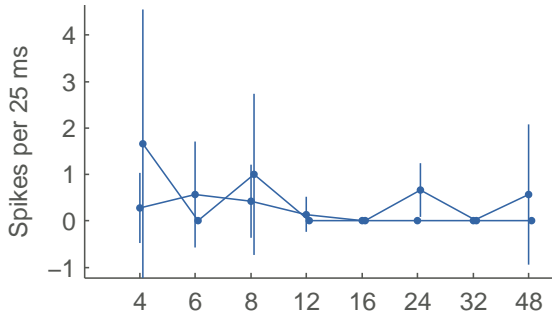
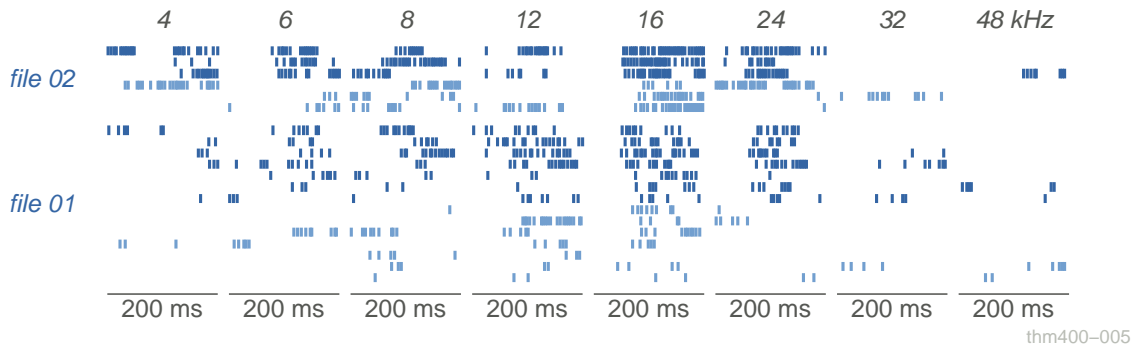


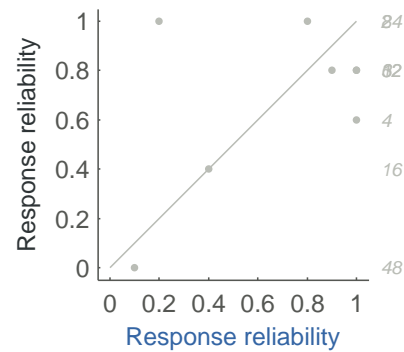
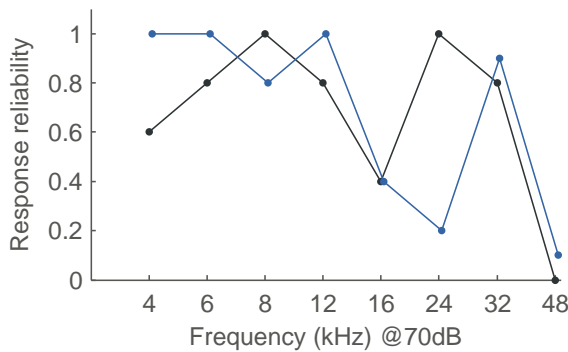
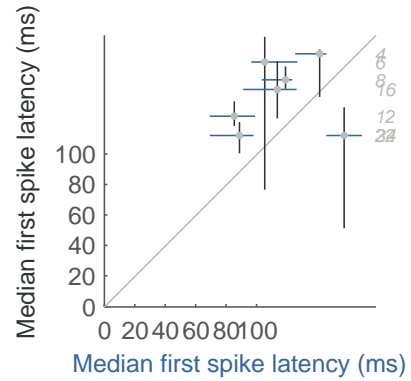
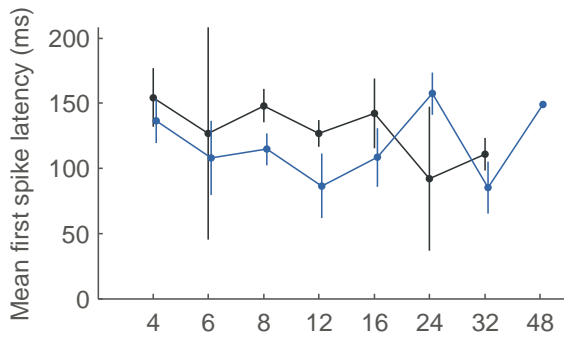
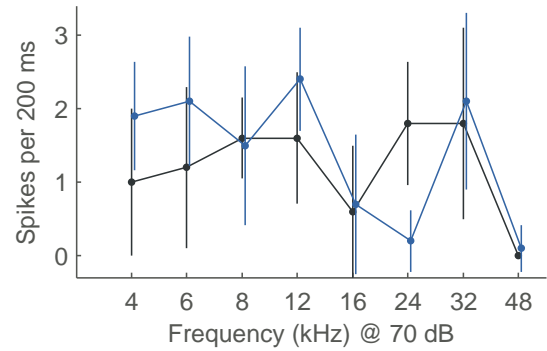
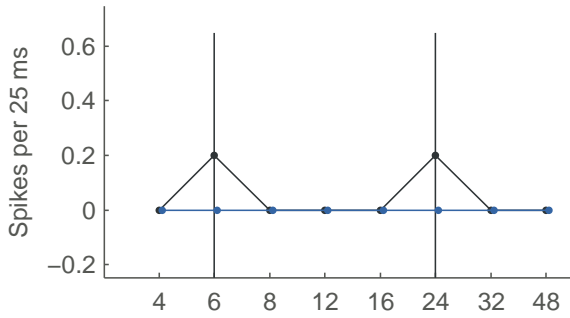
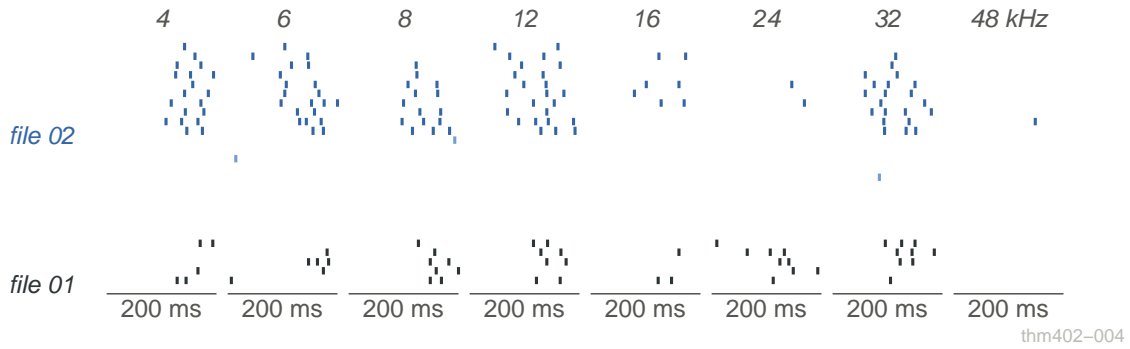
Notes: Chat-Cre, injected with AAV-EF1-ChR2-YFP on 07/30/2009 (Sachin) lots of nice spikes, seems responsive, trains of action potentials spikes became smaller during the sixth repeat of the whole protocol and then became MUCH bigger... (Rt== 60)



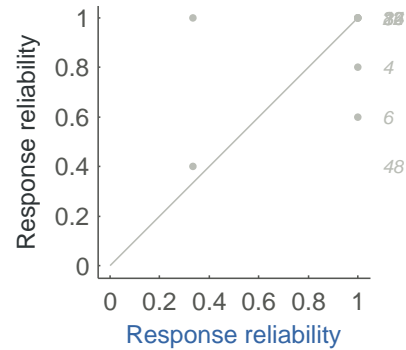
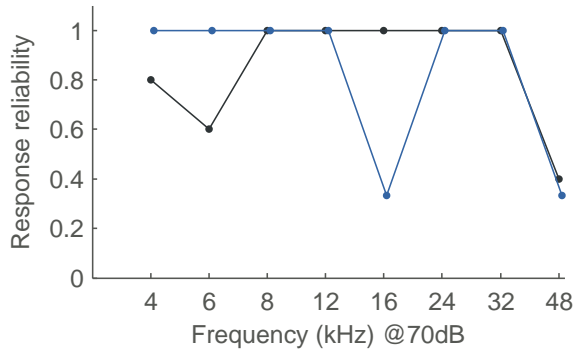
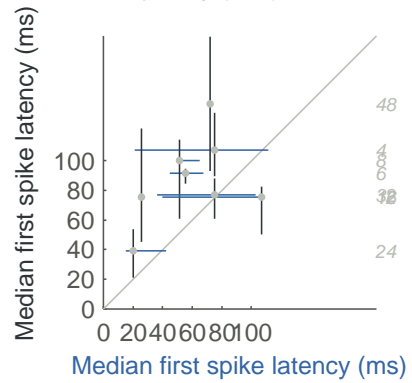
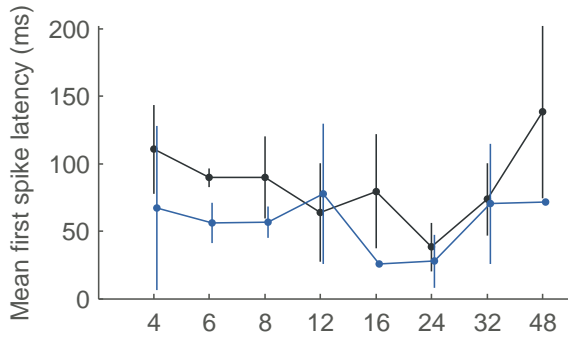
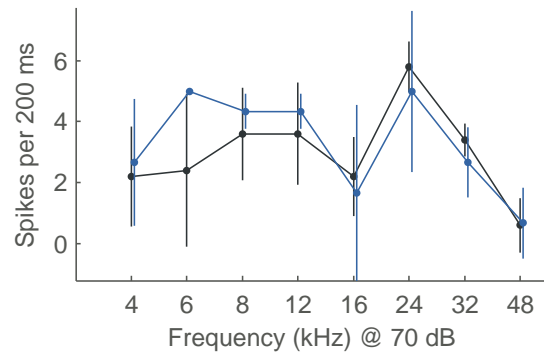
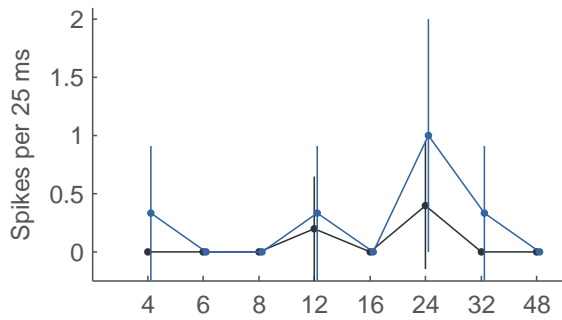
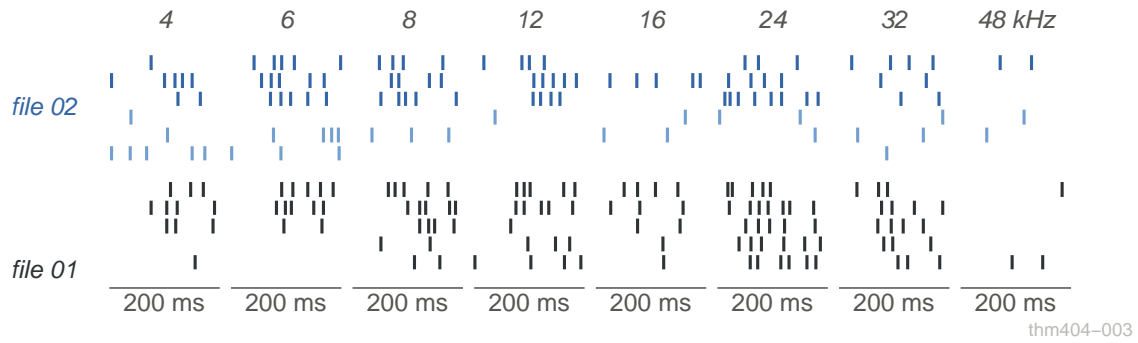
Notes: Chat-Cre, injected with AAV-EF1-ChR2-YFP on 07/30/2009 (Sachin) fewer spikes, nicely responsive many more spikes after two repeats of the whole protocol (Rt== 45MOhm), suddenly long bursts/fast trains of action potentials??? cell damaged? probably



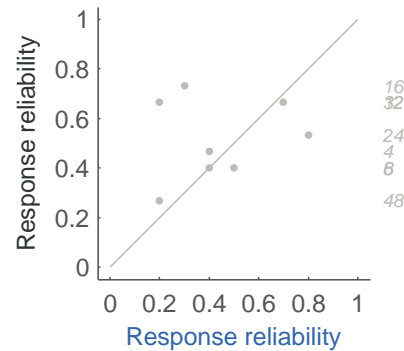
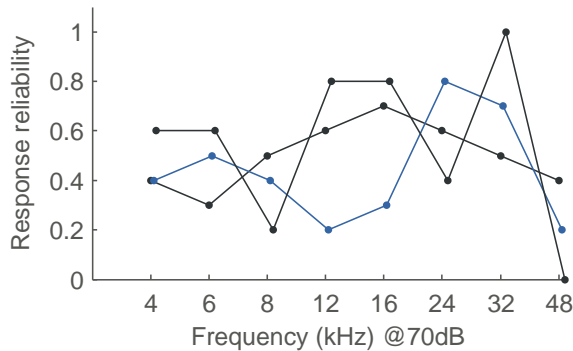
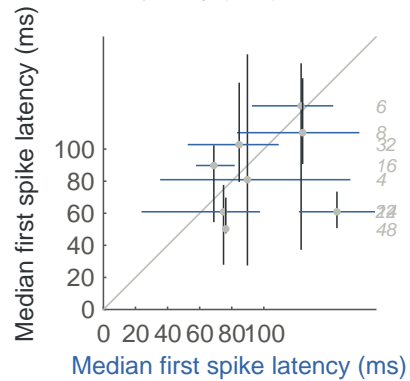
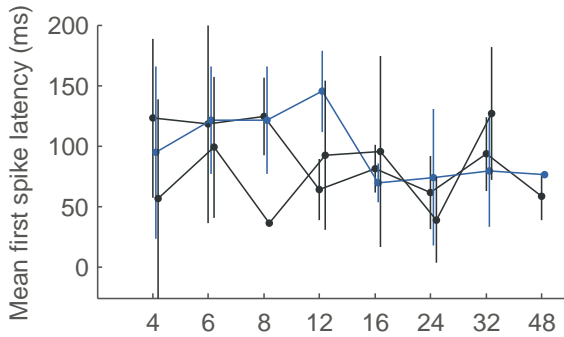
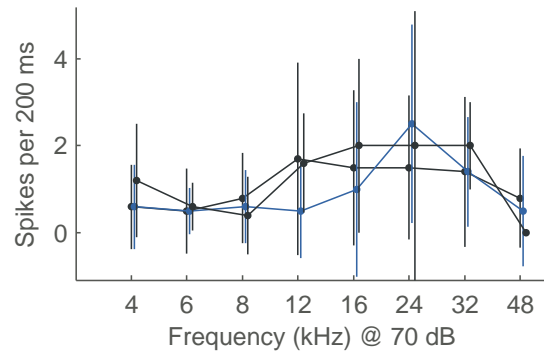
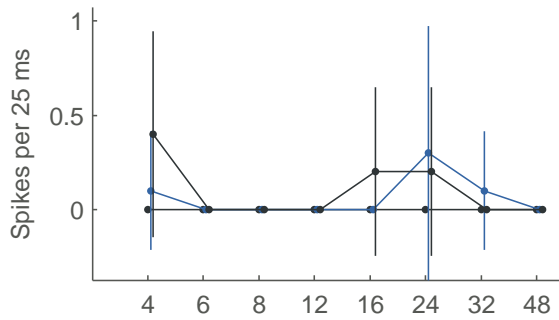
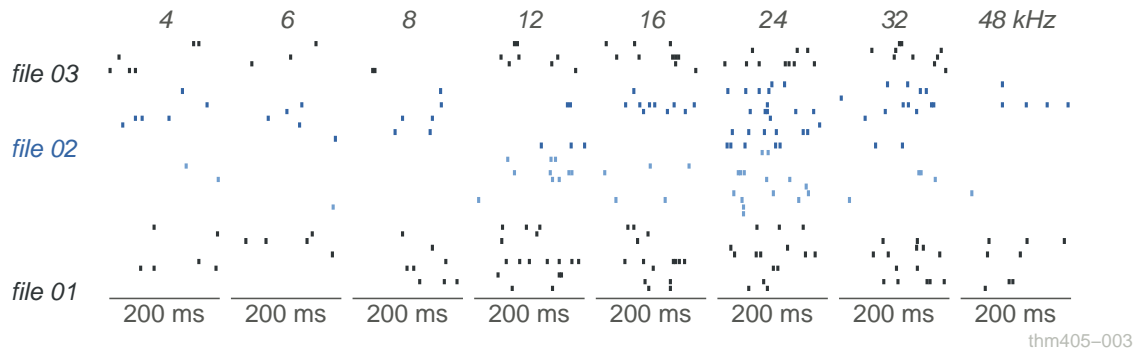
Notes: Chat-Cre, injected with AAV-EF1-ChR2-YFP on 07/30/2009 (Sachin) HL nice responses, lot of spikes, sustained???
fast trains of action potentials...



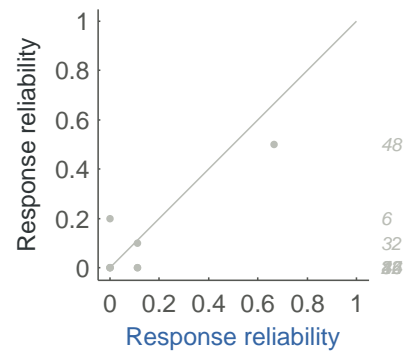
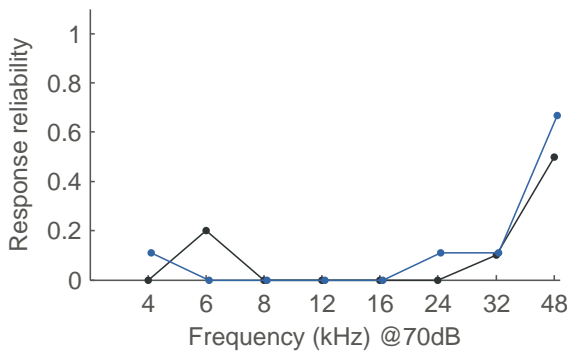
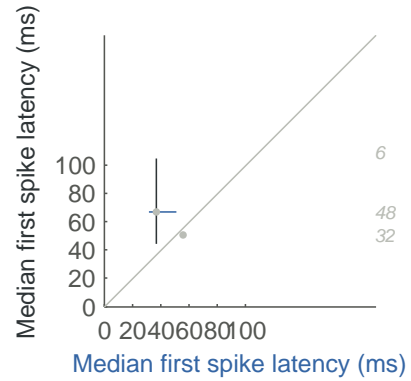
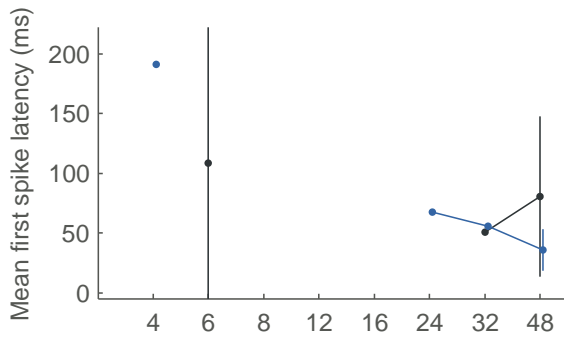
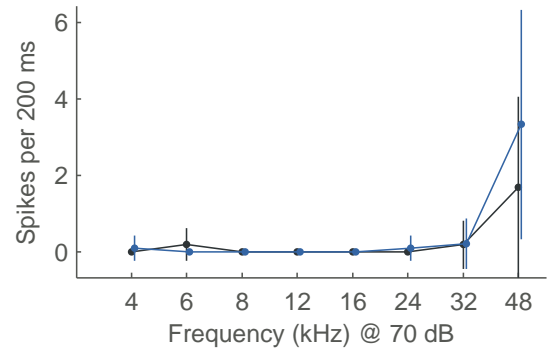
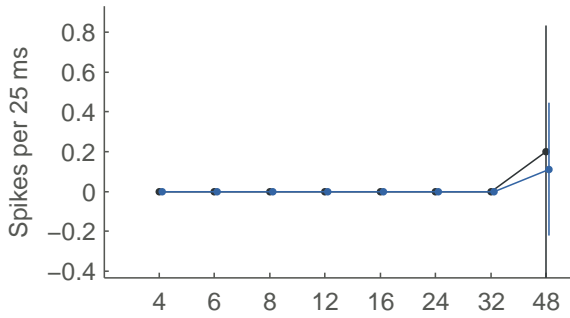
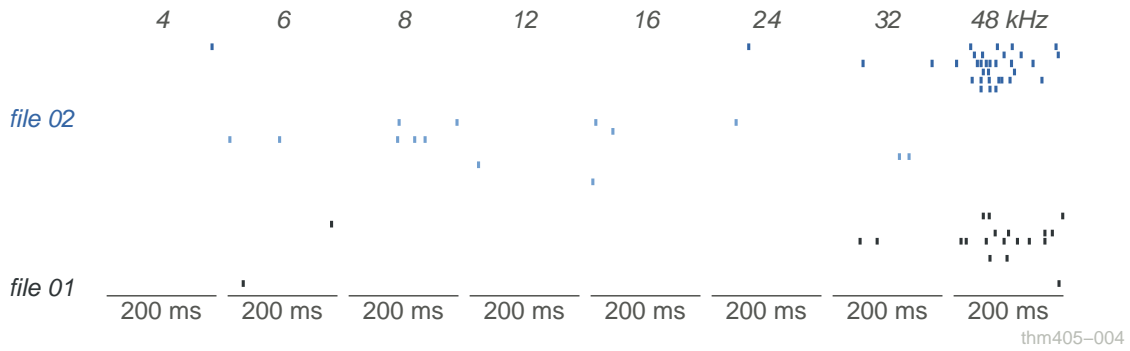
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP on 07/30/2009 (Sachin) QX314 seems tuned (24 kHz), doesn't really respond to white noise bursts; lots of off-responses to tones



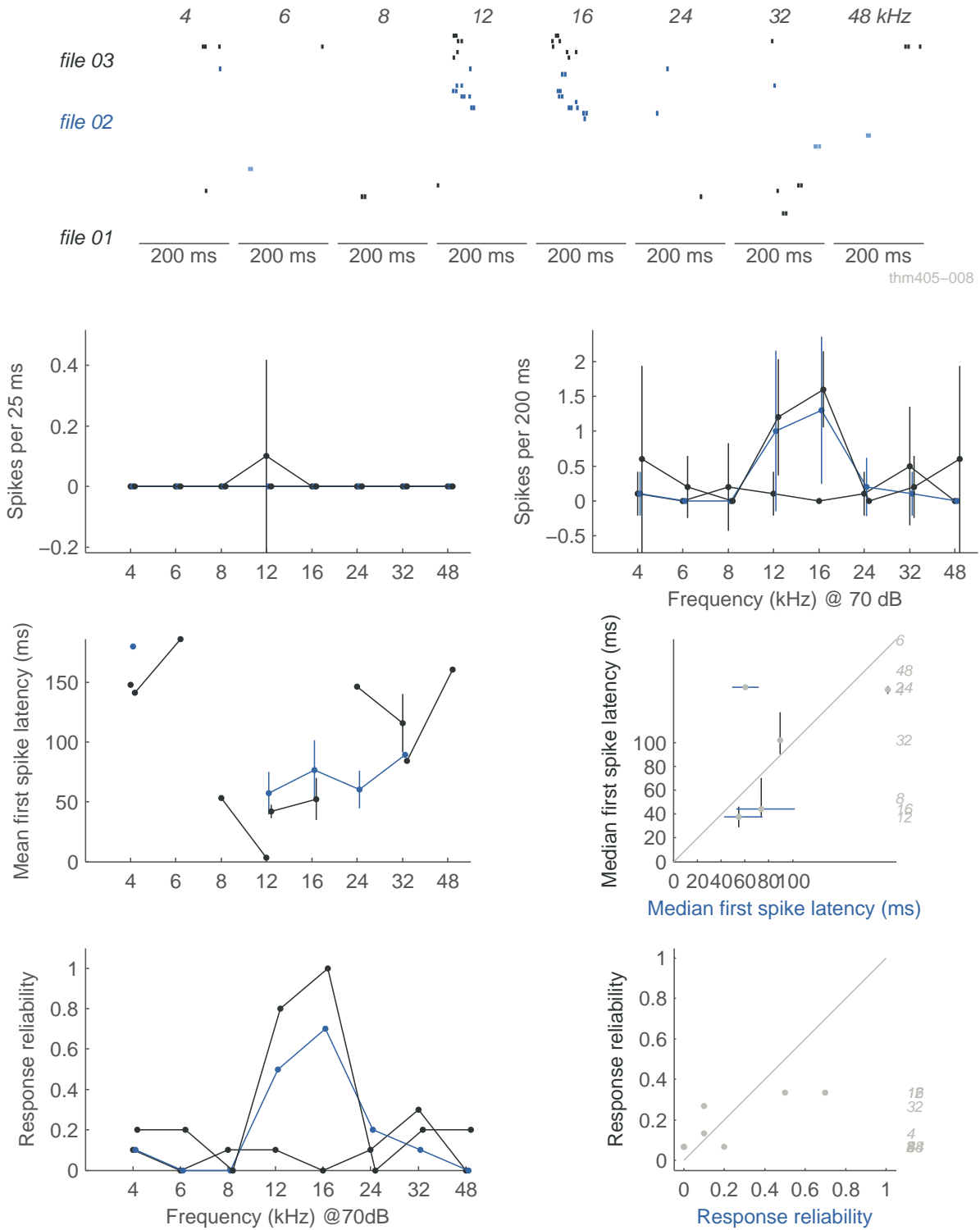
Notes: Chat-Cre injected on 08/10/2009 with AAV-EF1-ChR2-YFP (BL, HL) QX314 animal breathing very fast nice responses, broke in again in the end of the recording. Is that because of the fast breathing???



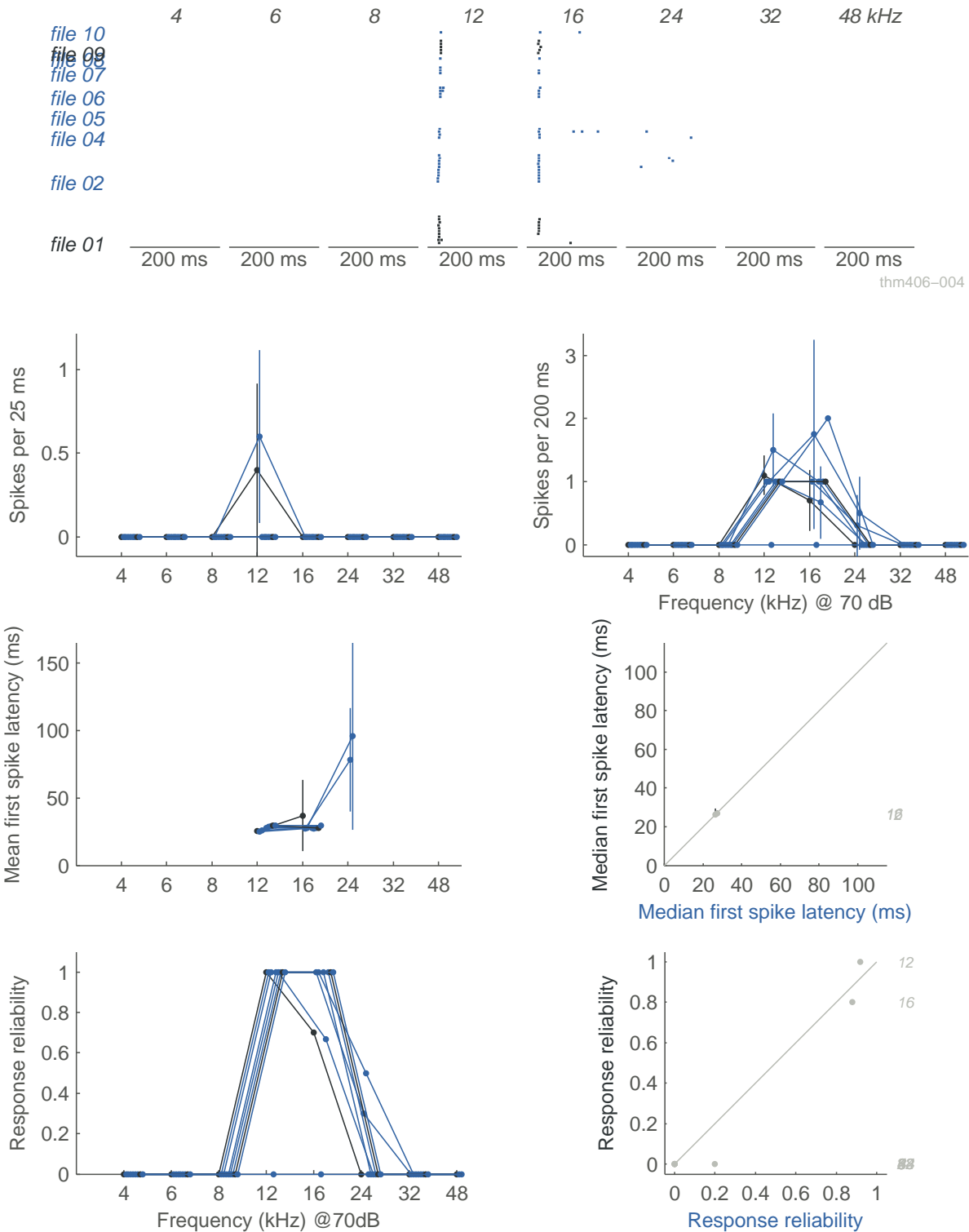
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/11/2009 (BL, NH) QX314 nice spikes, sustained responses to white-noise bursts (and some tones) from the very beginning??? tuned to 24 kHz file 001: tuning curve file 003: led/wn/tuning protocol file 004: tuning curve and wn again seal improved during the recording (Rt== 60 MOhm)



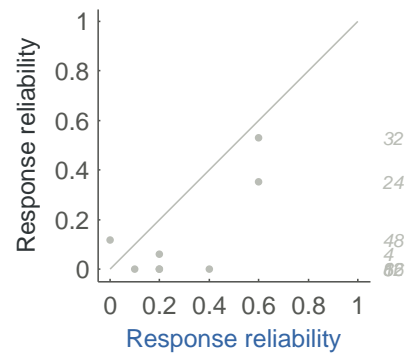
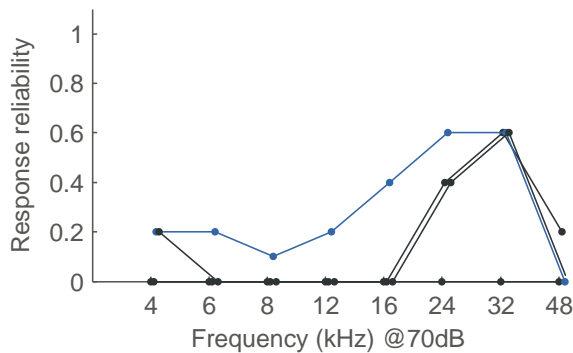
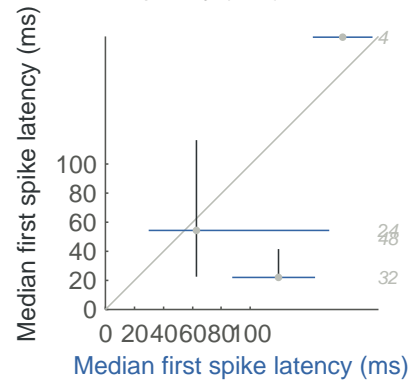
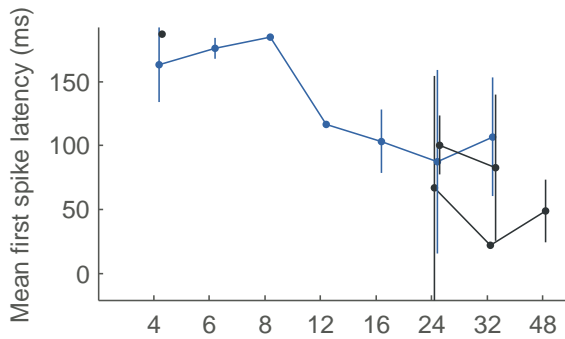
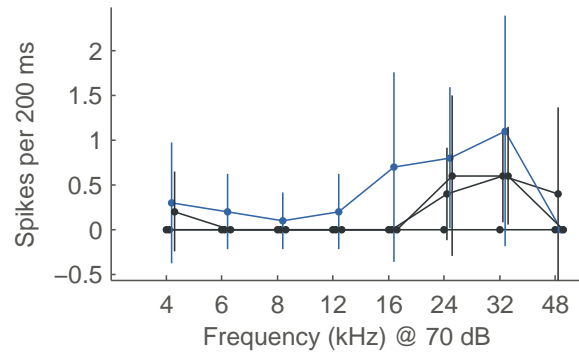
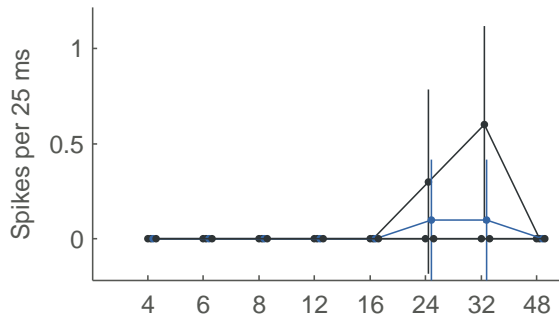
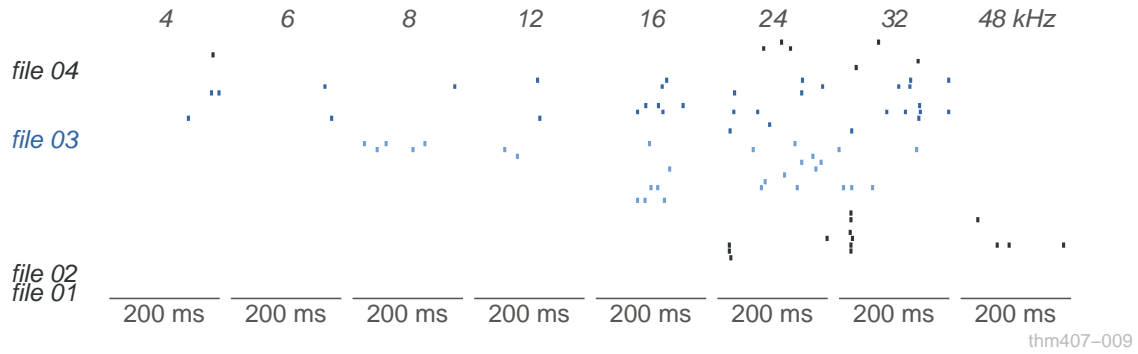
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/11/2009 (BL, NH) QX314 few spikes in the beginning (occasional trains of action potentials); more spikes after 5 min file 001: tuning curve + wn file 002: led/wn/tuning protocol cell lost at the beginning of 10th repeat of the whole protocol



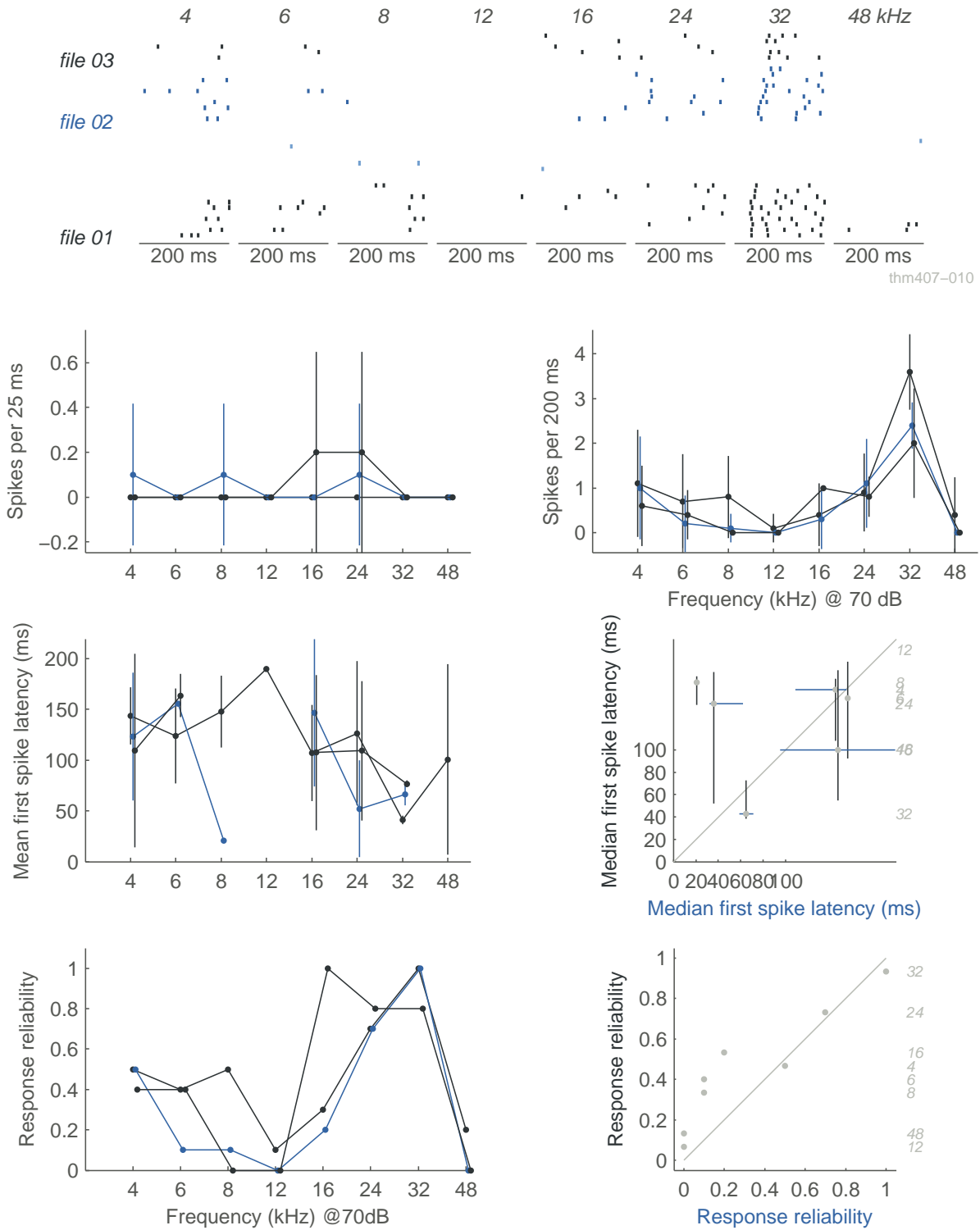
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/11/2009 (BL, NH) QX314 nice spikes, some responses to white noise, not much to tones in the beginning file 001: tuning/wn file 002: led/wn/tuning protocol file 003: tuning/wn again



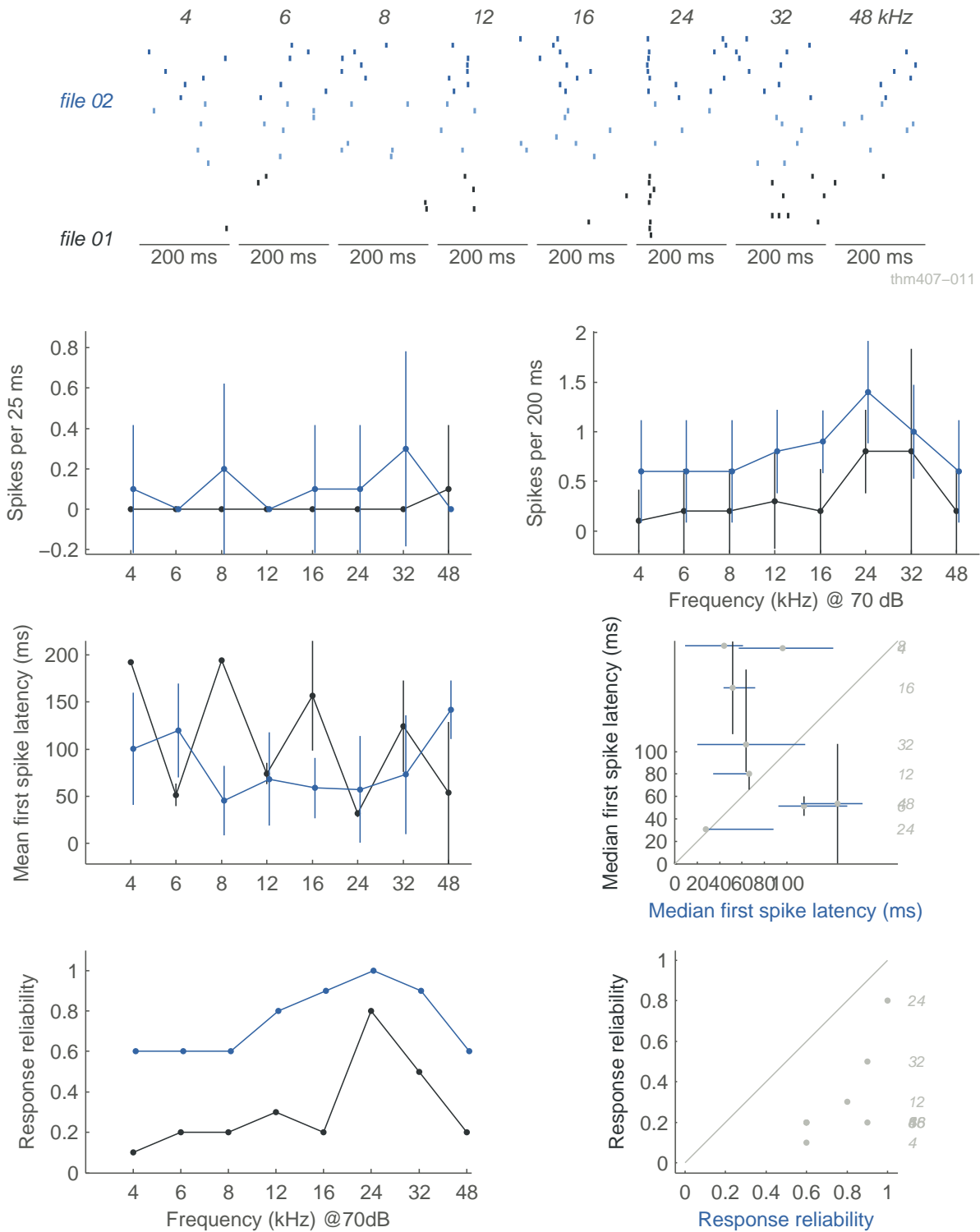
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/11/09 (BL, NH) orange filter on microscope QX314 nice spikes, tightly tuned (12–16 kHz), doesn't respond to white noise bursts file 001: tuning/wn file 002: led/wn/tuning; short led bursts ten repeats did nothing file 003: nothing file 004: led/wn/tuning; long led bursts; started losing the cell (Rt== 300 MOhm); one train of action potentials...! file 005: spikes are gone, recording minis??? file 006: 'got the seal back'; trying the long led/wn/tuning protocol again file 007: short led/wn/tuning protocol file 008: dtto; spikes are getting smaller file 009: tuning curve file 010: onerepeat of long led protocol ; spikes became very small



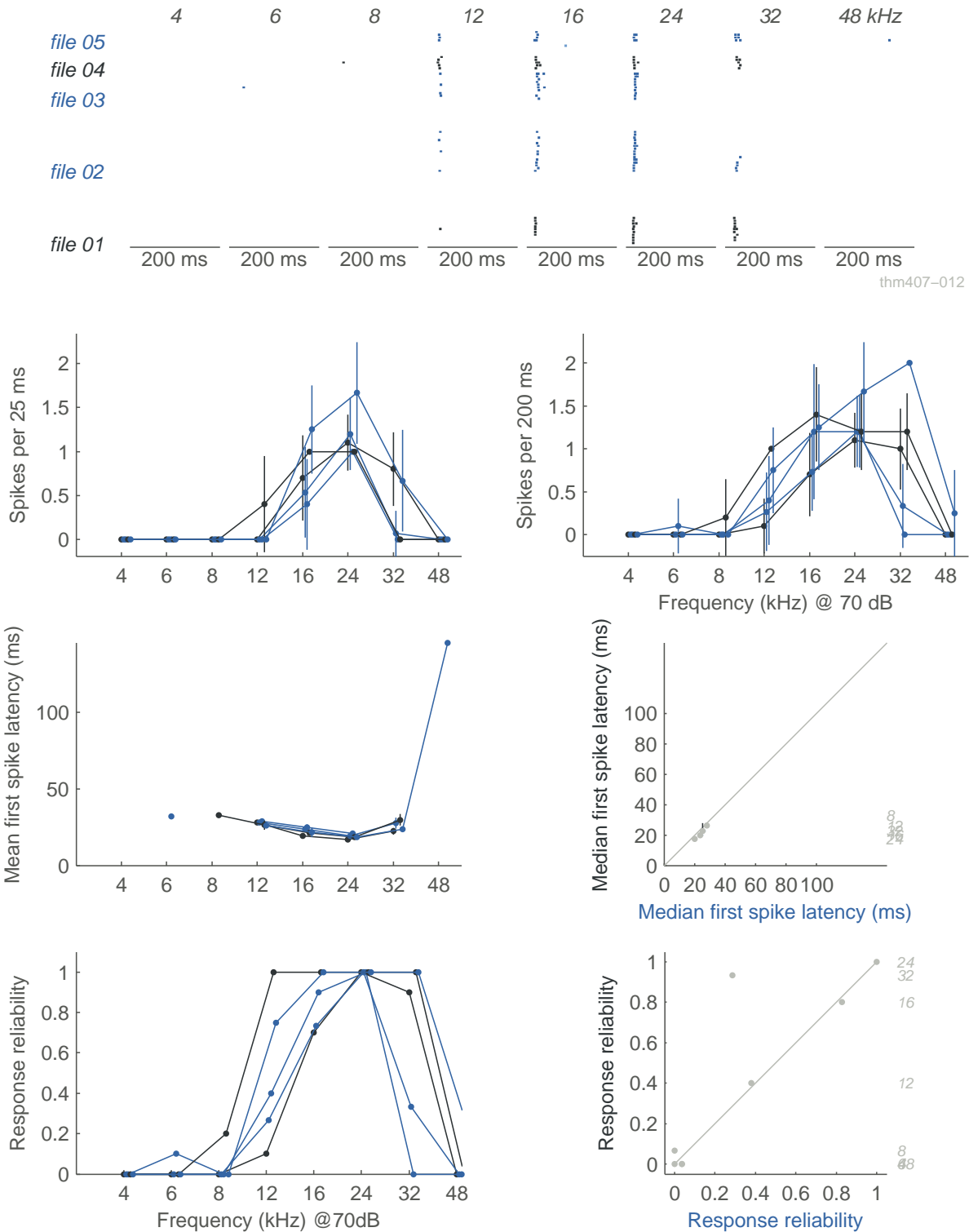
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/12/2009 (AG, HL) orange filter on microscope QX314 fires trains of action potentials; I decreased isoflurane to .25_{thm407-009.tuning.pdf}



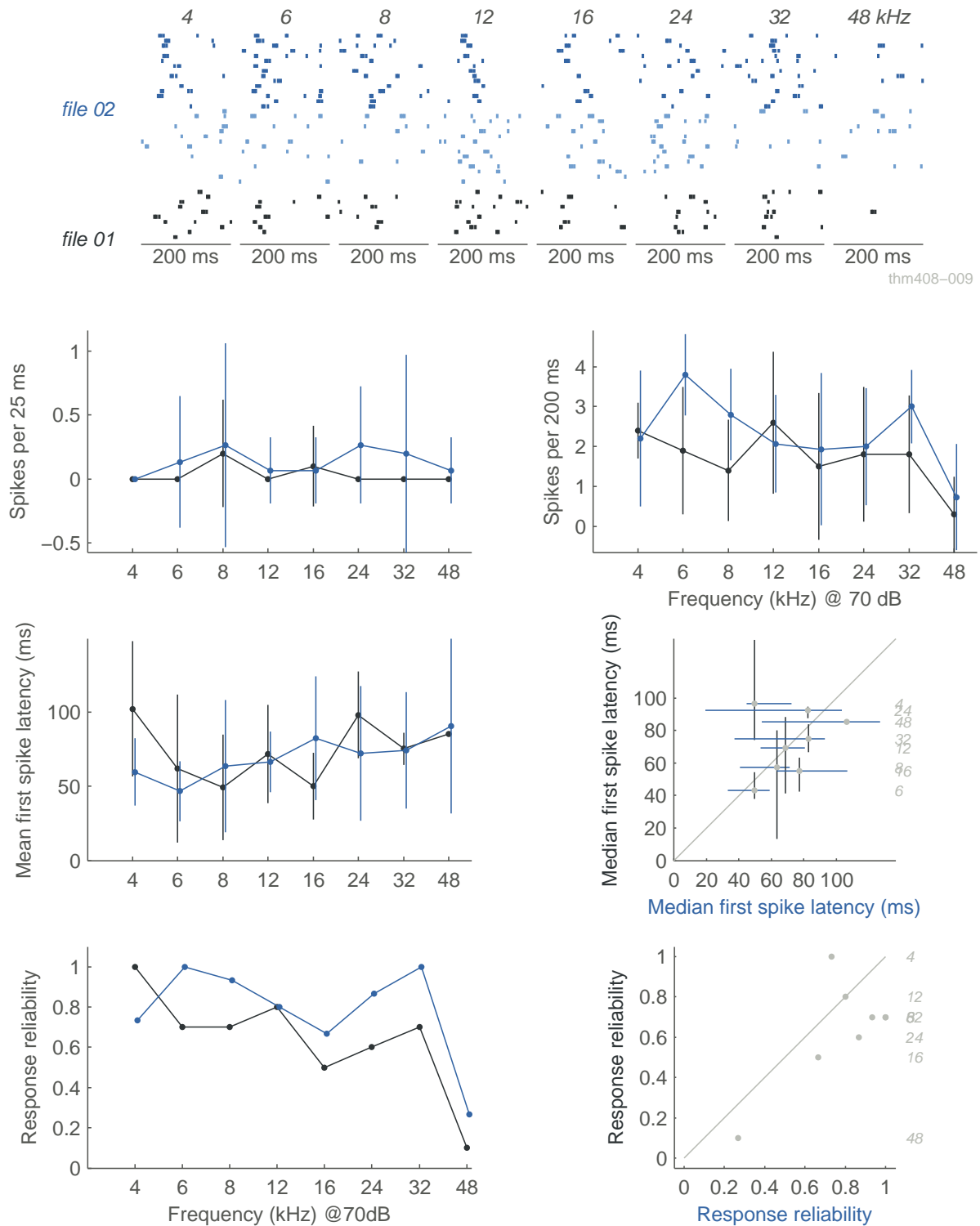
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/12/2009 (AG, HL) orange filter on microscope QX314 short trains of action potentials; seems tuned isoflurane up to .375



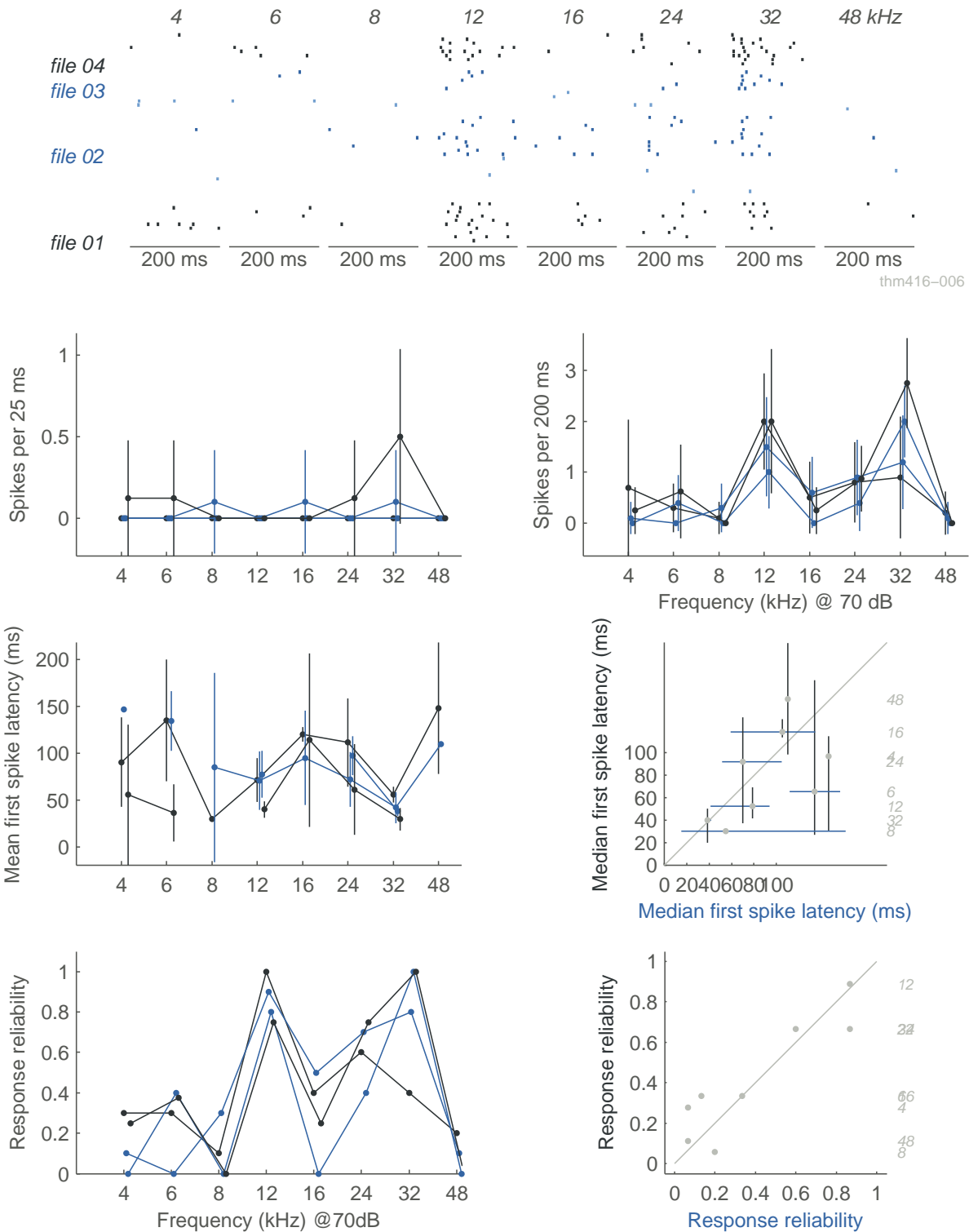
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/12/2009 (AG, HL) orange filter on microscope QX314
 lower spiking activity, seems binary? tuned to 24 kHz file 001: tuning/wn file 002: led/wn/tuning
 thm407-011_tuning.pdf



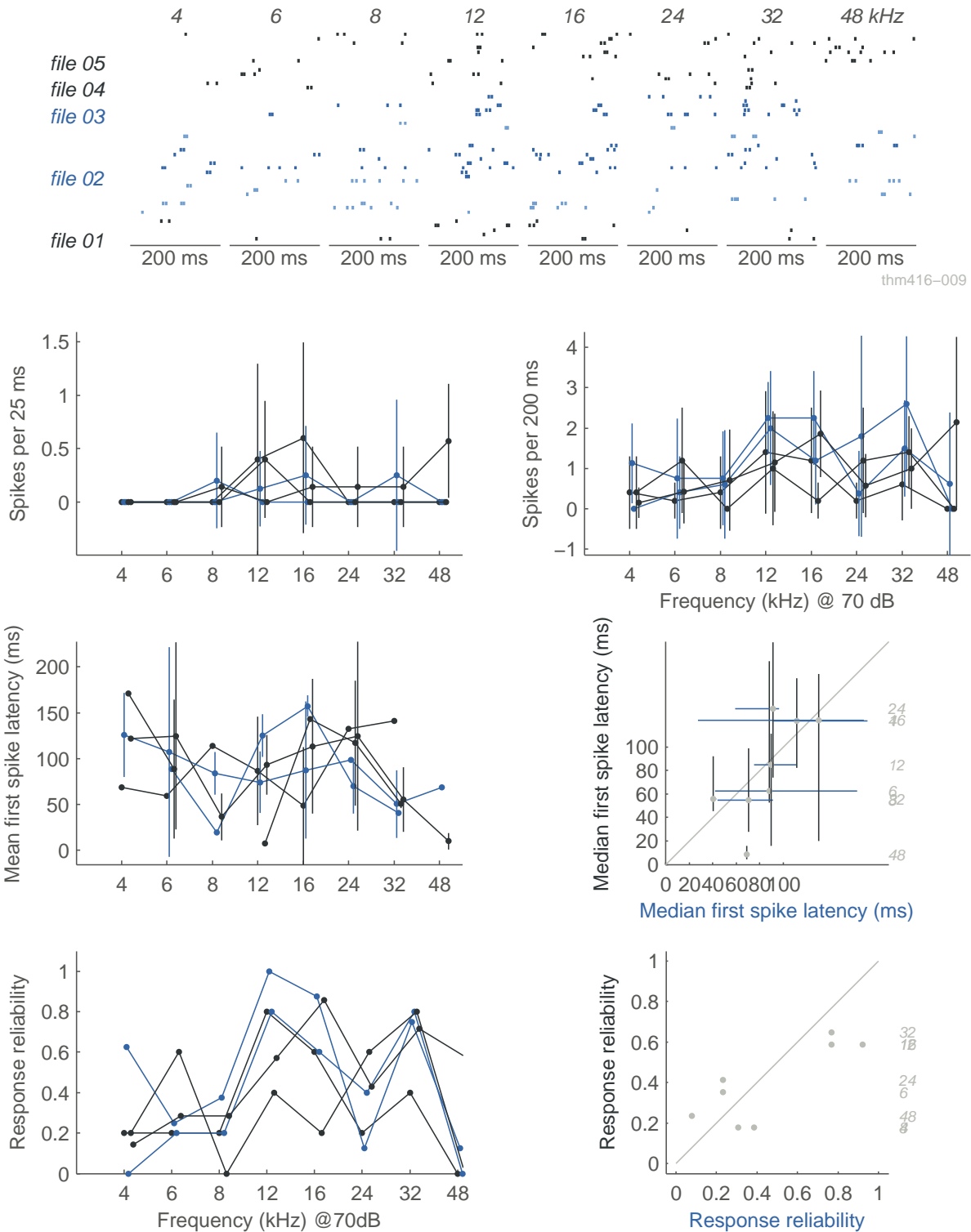
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/12/2009 (AG, HL) orange filter on microscope QX314 nice spikes; binary, tuned to 24 kHz file 001: tuning/wn; some multi-spike responses (doublets) to white-noise bursts in the end file 002: led/wn/tuning file 003: led/wn/tuning with long led pulses; let's see if the cortex wakes up; well, it didn't seal changed to Rt== 45MOhm the heating pad wasn't very warm today, could that be a factor? I tried to 'heat it up' after file 003, and waited for 10 min file 004: tuning/wn file 005: led/wn/tuning; it seems I have broke-in the cell during the 4th repeat of the whole protocol



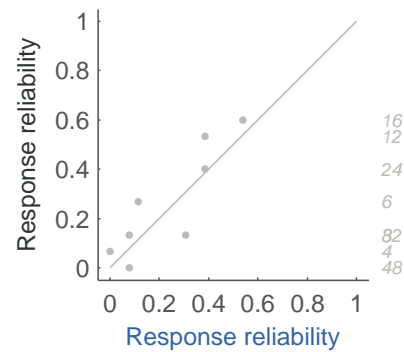
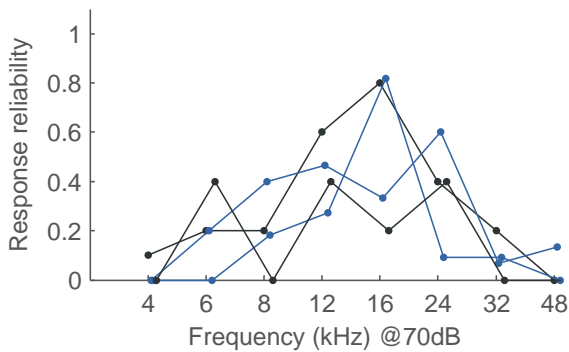
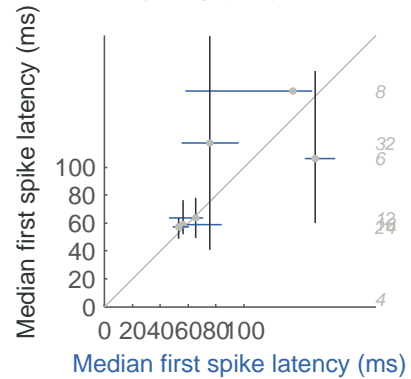
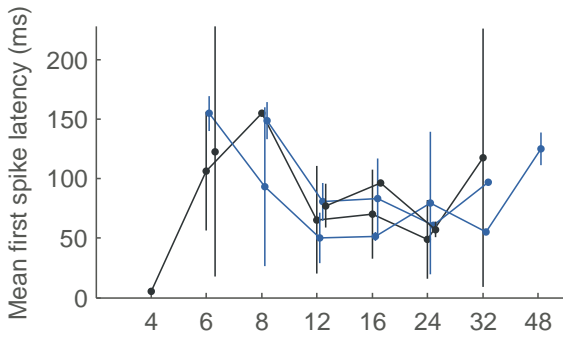
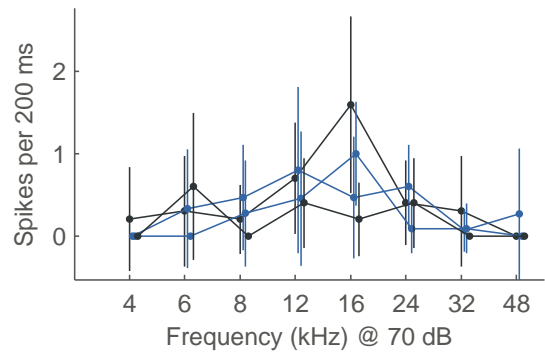
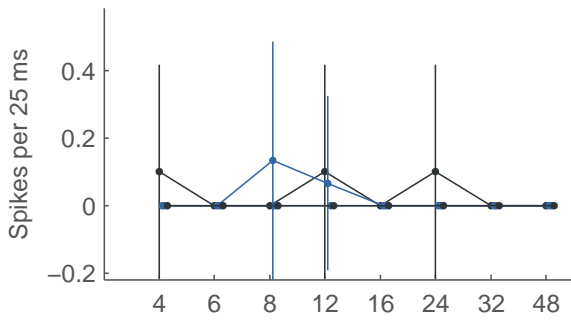
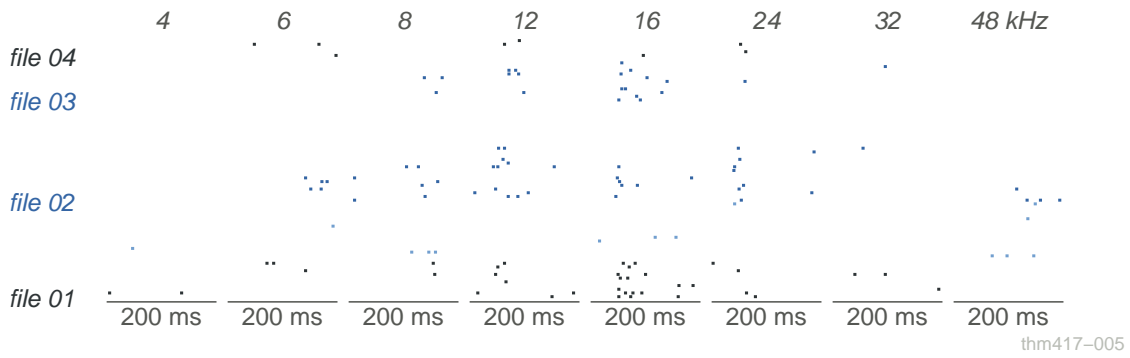
Notes: Chat-Cre injected with AAV-EF1-ChR2-YFP (Sachin) on 08/12/2009 (AG, HR) orange filter on microscope doesn't seem extremely well-responsive, fires doublets of action potentials file 001: tuning/wn file 002: led/wn/tuning; after 10 min there does seem to be more activity???



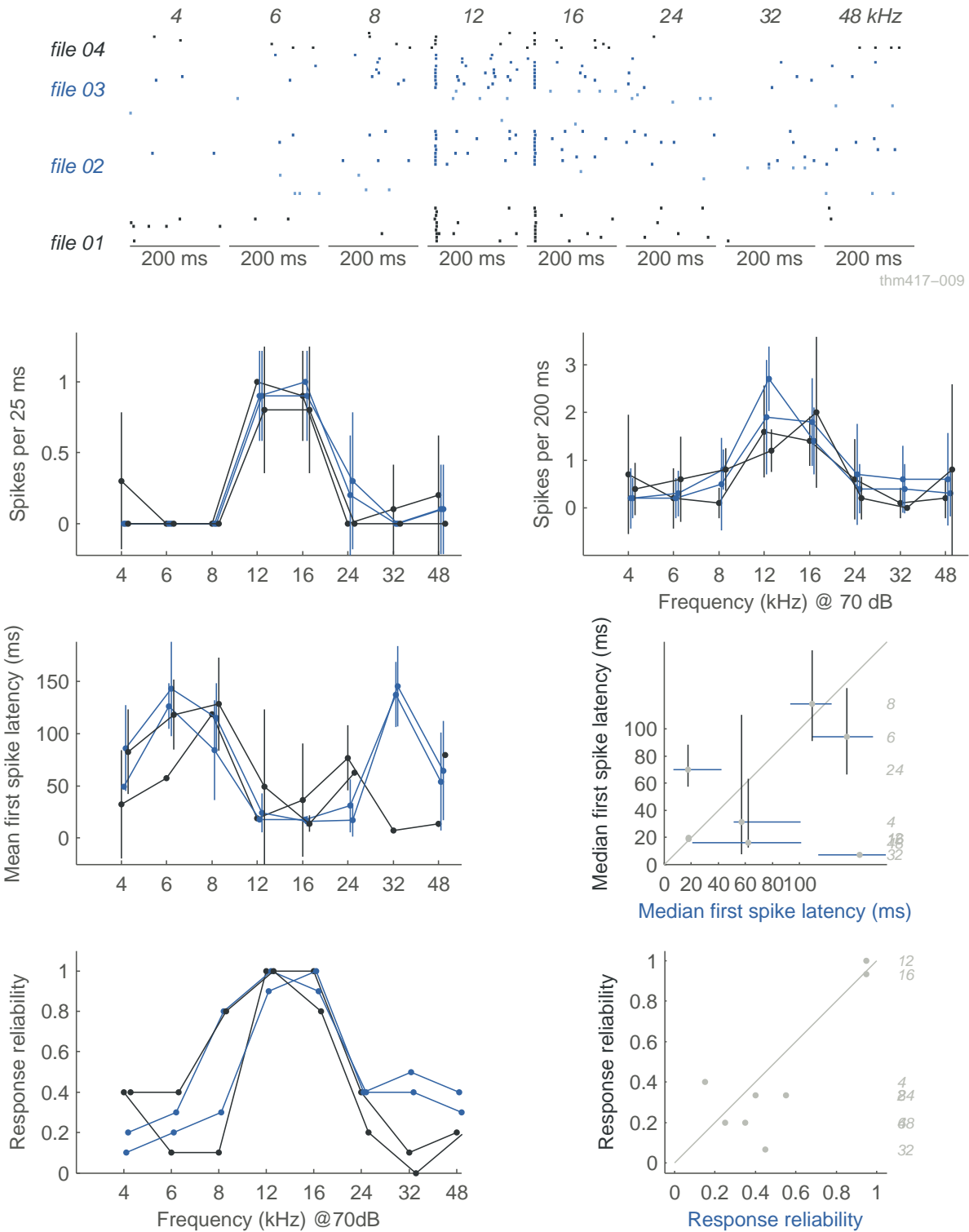
Notes: Chat-Cre AG-1-4 (Ag, HRHL) injected with AAV-EF1-ChR2-YFP (Sachin) on 09/01/2009 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) cell seems to be tuned; trains of action potentials file 001: tuning tones/w/n file 002: led/w/n protocol; led doesn't seem to have any effect file 003: led/w/n protocol with longer led pulses file 004: tuning tones/w/n again, no led stim; only 8 repeats, led stimulation doesn't seem to have any effect



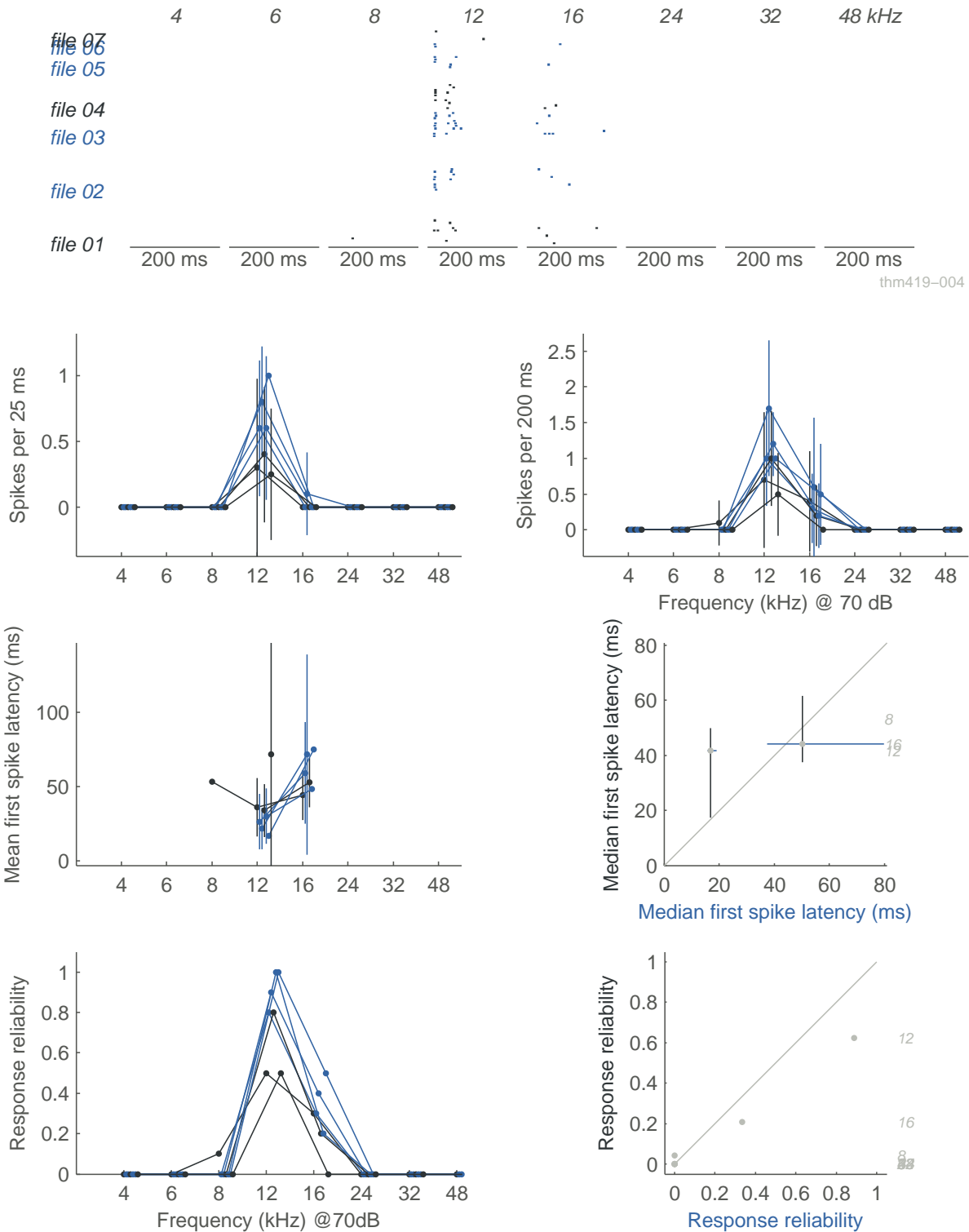
Notes: Chat-Cre AG-1-4 (Ag, HRHL) injected with AAV-EF1-ChR2-YFP (Sachin) on 09/01/2009 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) this cell just complements gallery of today's unresponsive cells... file 001: tone/wn tuning file 002: led/wn stimulation file 003: led/wn stimulation, longer pulses file 004: tone/wn tuning after file 004 I removed the orange filter from microscope light and let the white light stimulate cortex for 1 min file 005: tone/wn tuning again



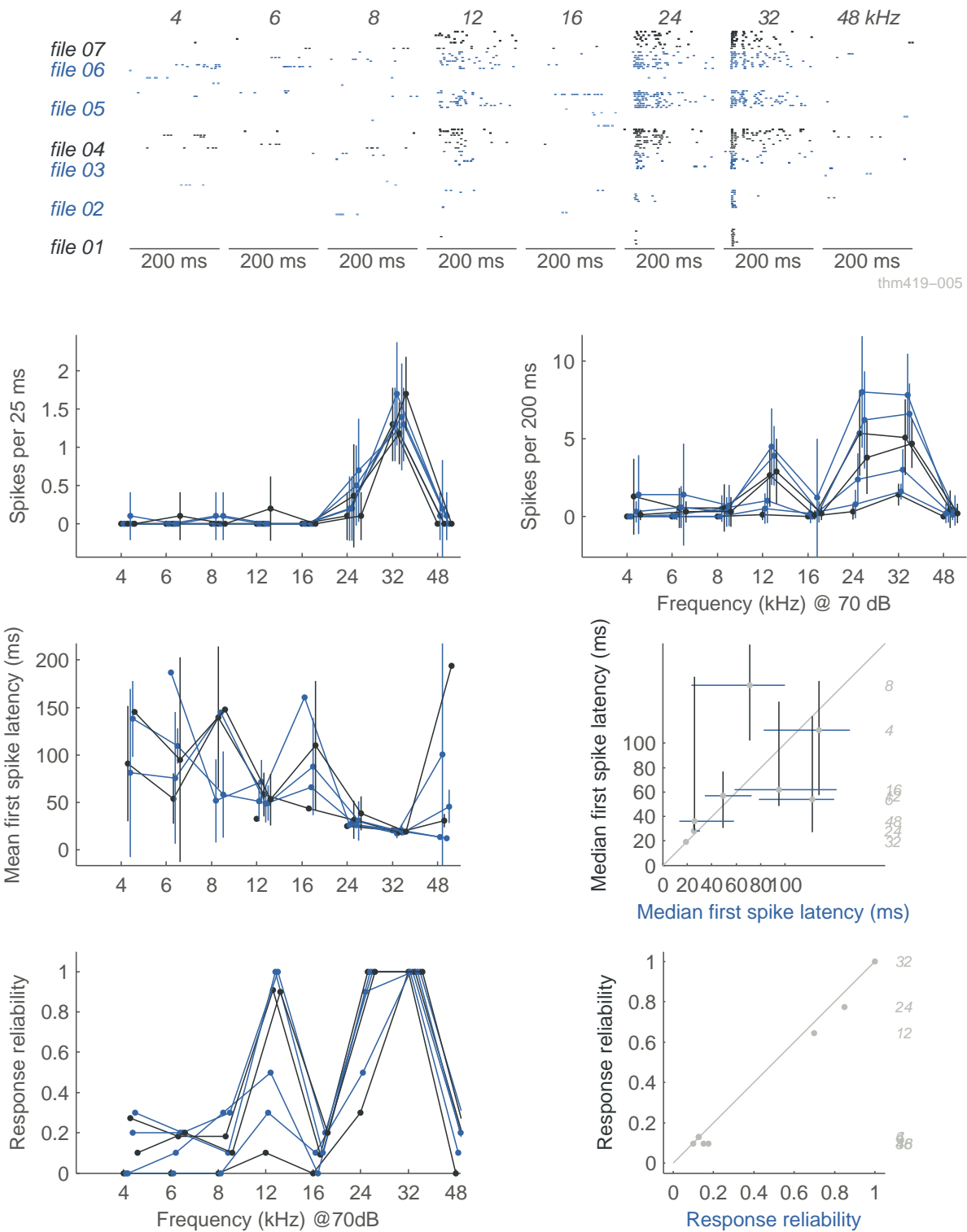
Notes: Chat-Cre (G-1-3, Ag, HL) injected with AAV-EF1-ChR2-YFP on 09/01/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) cell responsive and tuned; perhaps binary???. it does fire doublets, though file 001: tone/w/n tuning file 002: led/w/n stimulation file 003: led/w/n stimulation; longer led pulses cell seems to be firing less??? file 004: tone/w/n tuning



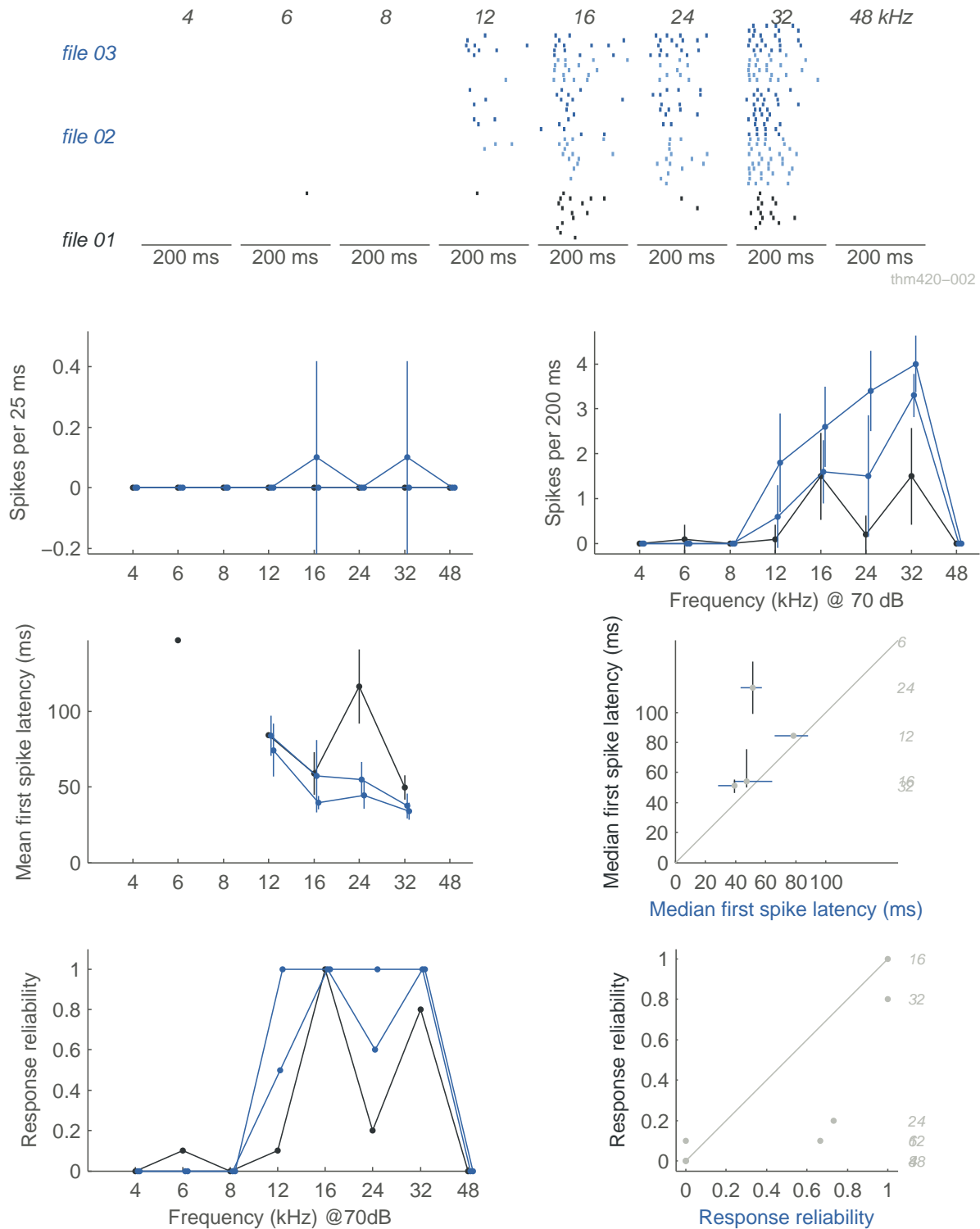
Notes: Chat-Cre (G-1-3, Ag, HL) injected with AAV-EF1-ChR2-YFP on 09/01/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) not many spikes, occasional trains of action potentials file 001: tone/w/n tuning file 002: led/w/n stimulation file 003: led/w/n stimulation with longer led pulses cell actually seems binary with respect to tone-evoked responses?! spikes are back on tungsten electrode file 004: another tuning curve



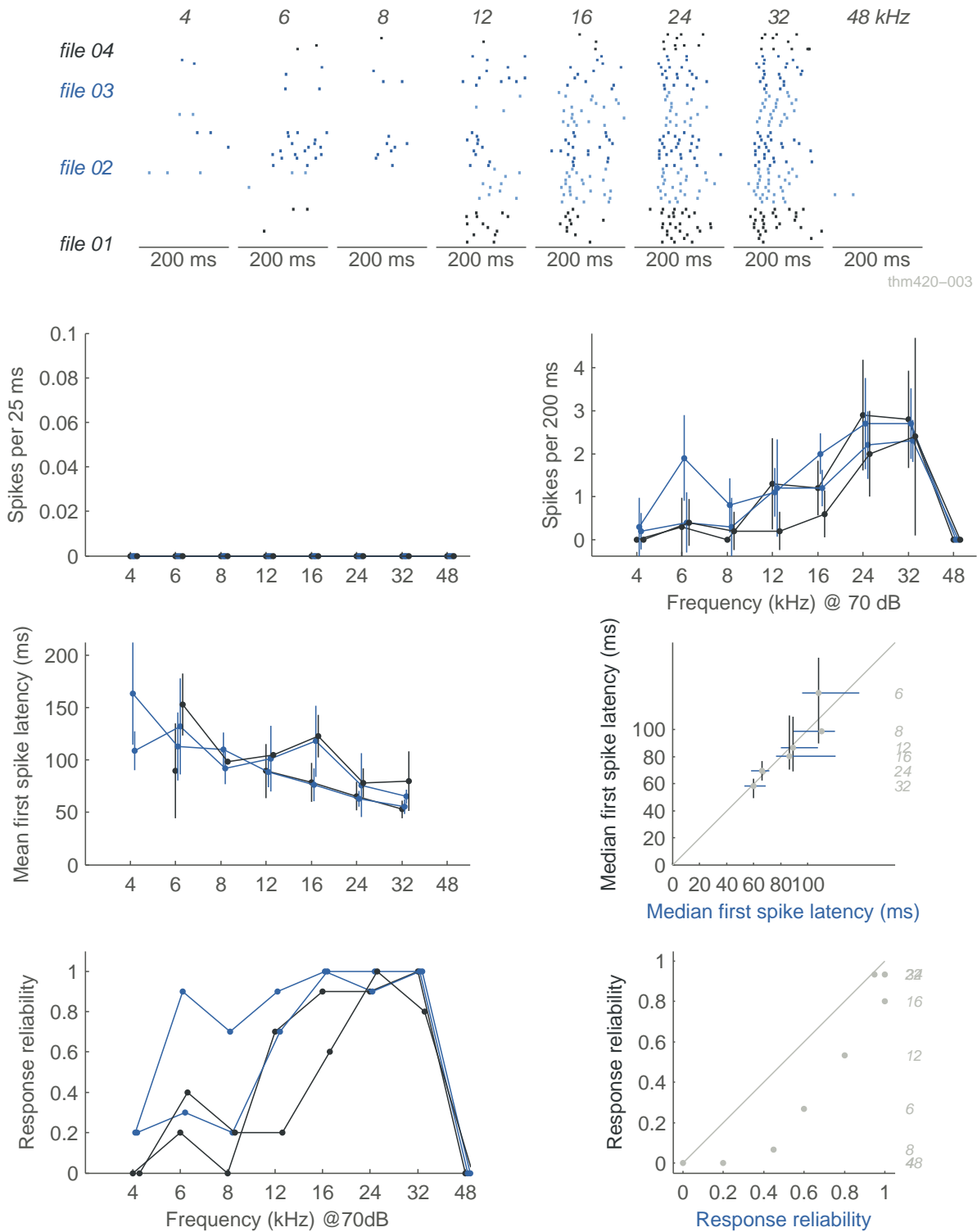
Notes: Chat-Cre (G-1-1, Ag, NH) injected with AAV-EF1-ChR2-YFP (Sachin) on 09/01/09 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) very few spikes, but nicely tuned file 001: tone/w/n tuning file 002: led/w/n stimulation; short file 003: led/w/n stimulation; long; cell seems to be firing more spikes per tone! file 004: tone/w/n tuning file 005: led/w/n stimulation; short file 006: led/w/n stimulation; long signal 'deteriorated,' because I spontaneously broke-in (Rt==190, Rs==70), so in file 007 I recorded a CURRENT CLAMP (I==0) tuning curve; not a very good one though (offset was -35 mV!!!, quite a crappy whole-cell)



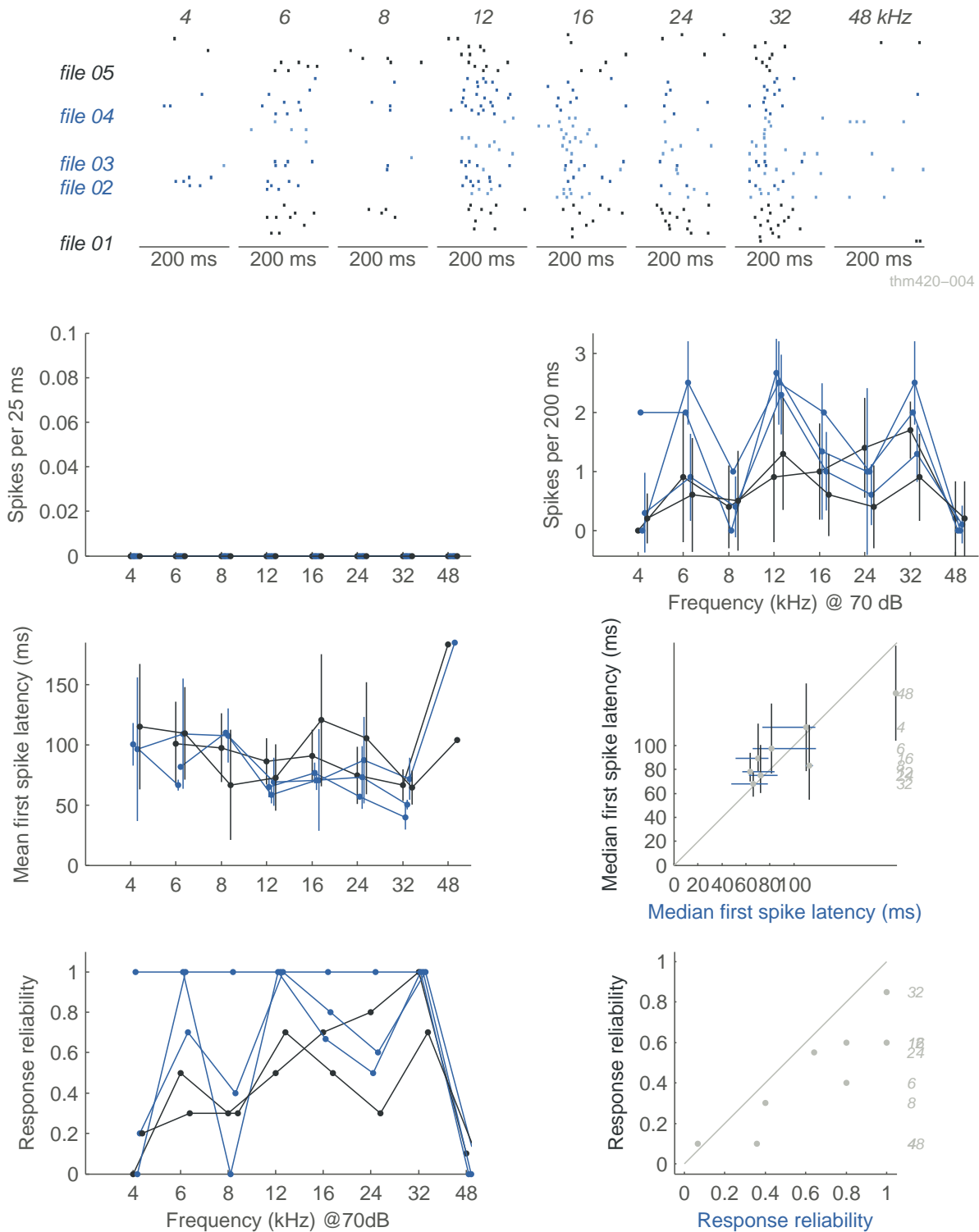
Notes: Chat-Cre (G-1-1, Ag, NH) injected with AAV-EF1-ChR2-YFP (Sachin) on 09/01/09 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) very few spikes, nicely tuned, seems binary? file 001: tone/wn tuning curve file 002: led/wn stimulation, short pulses file 003: led/wn stimulation, long pulses file 004: tone/wn tuning curve more and more spikes appear file 005: led/wn stimulation, short led pulses file 006: led/wn stimulation, long led pulses file 007: tone/wn tuning curve



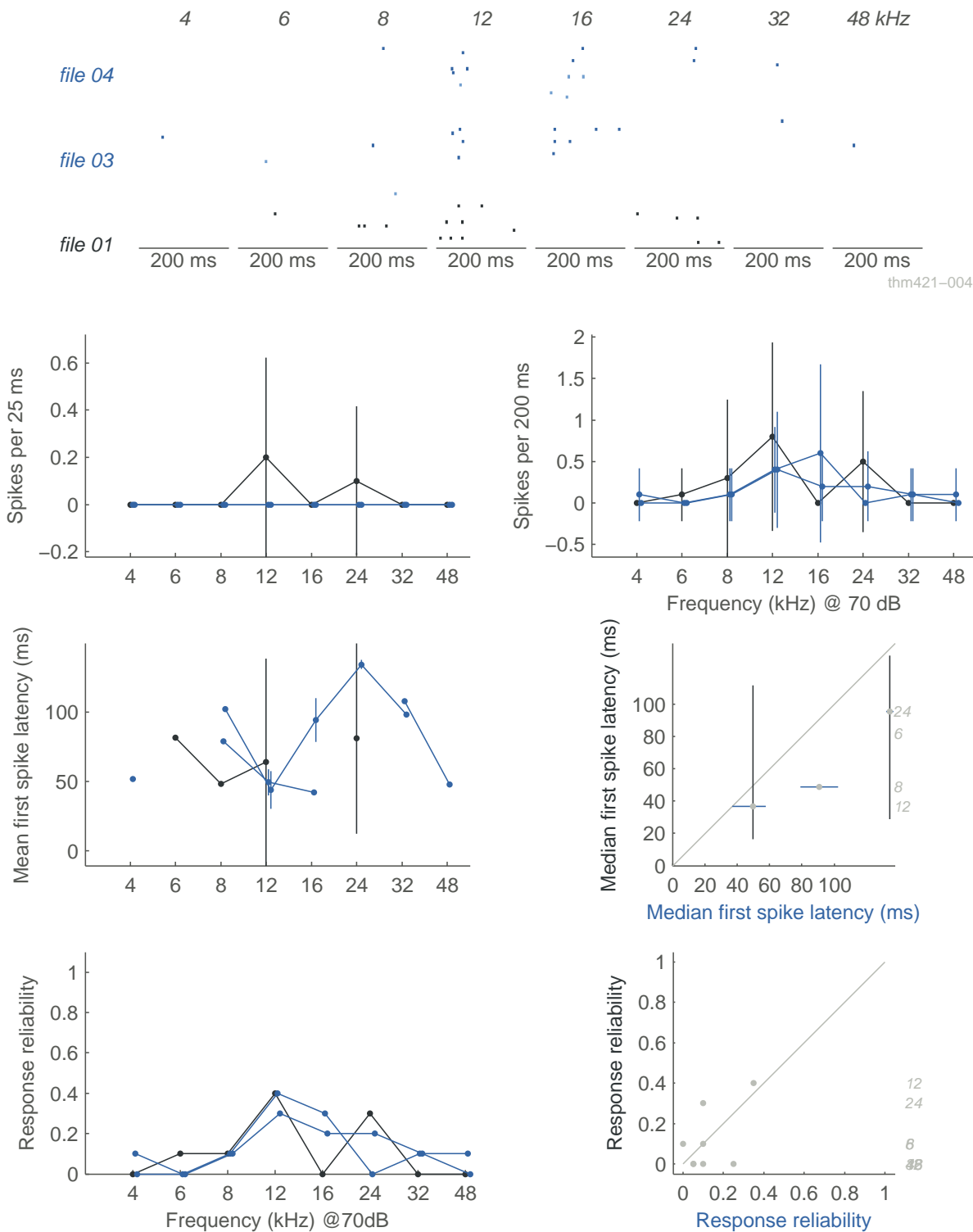
Notes: Chat-Cre, G-1-2 (Ag, HR) injected with AAV-EF1-ChR2-YFP on 09/01/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) nice responses; might be binary for some frequencies, but also fires doublets or triplets... and now the tungsten lfps are great, without me moving the electrode a bit! (maybe the first penetration was too close to the tungsten electrode???) file 001: tone/wn tuning curve file 002: led/wn stimulation, short led pulses file 003: led/wn stimulation, long led pulses files 004, 005: seal improved and I tried to break in, but the recording was pathetic and I quickly lost the cell... (discard these two files...)



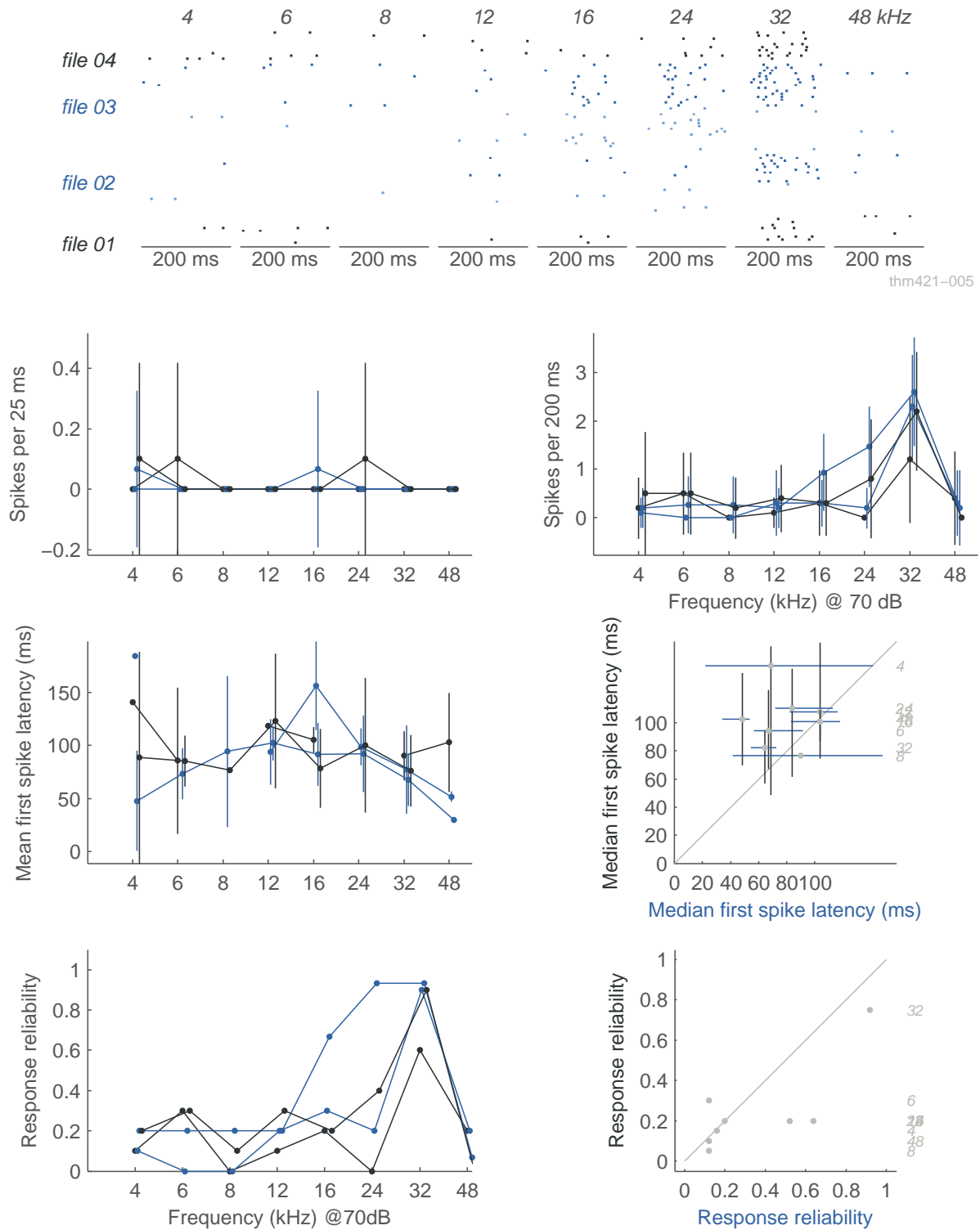
Notes: Chat-Cre, G-1-2 (Ag, HR) injected with AAV-EF1-ChR2-YFP on 09/01/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) nice responses, smaller spikes in the beginning file 001: tone/wn tuning curve file 002: led/wn stimulation, short led pulses recording looks more and more like a pseudo-intracellular recording file 003: led/wn stimulation, long wn pulses file 004: tone/wn tuning curve



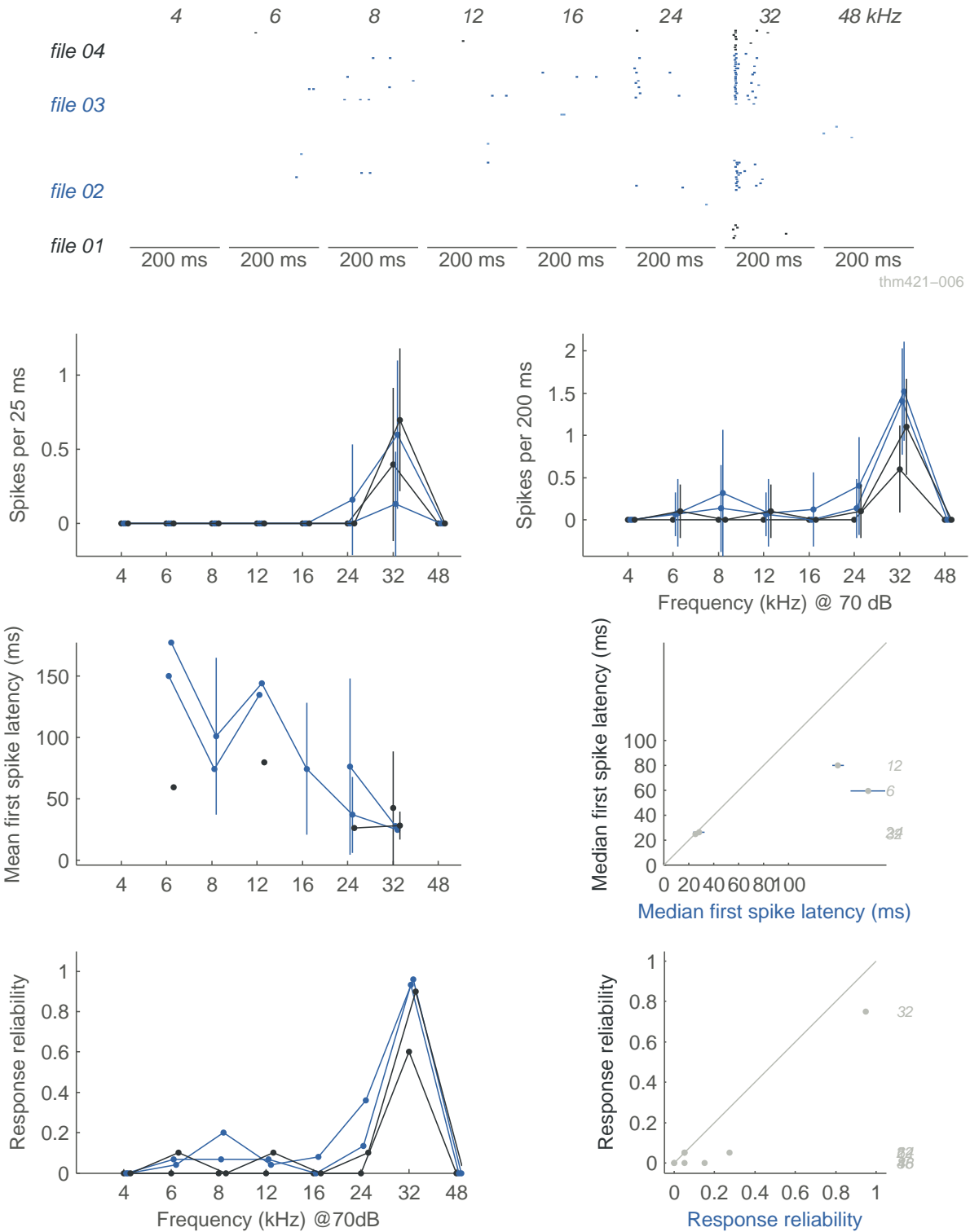
Notes: Chat-Cre, G-1-2 (Ag, HR) injected with AAV-EF1-ChR2-YFP on 09/01/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) nice responses file 001: tone/wn tuning file 002: led/wn stimulation, short led pulses file 003: led/wn stimulation, long led pulses file 004: dtto file 005: tone/wn tuning cell doesn't seem to fire much...



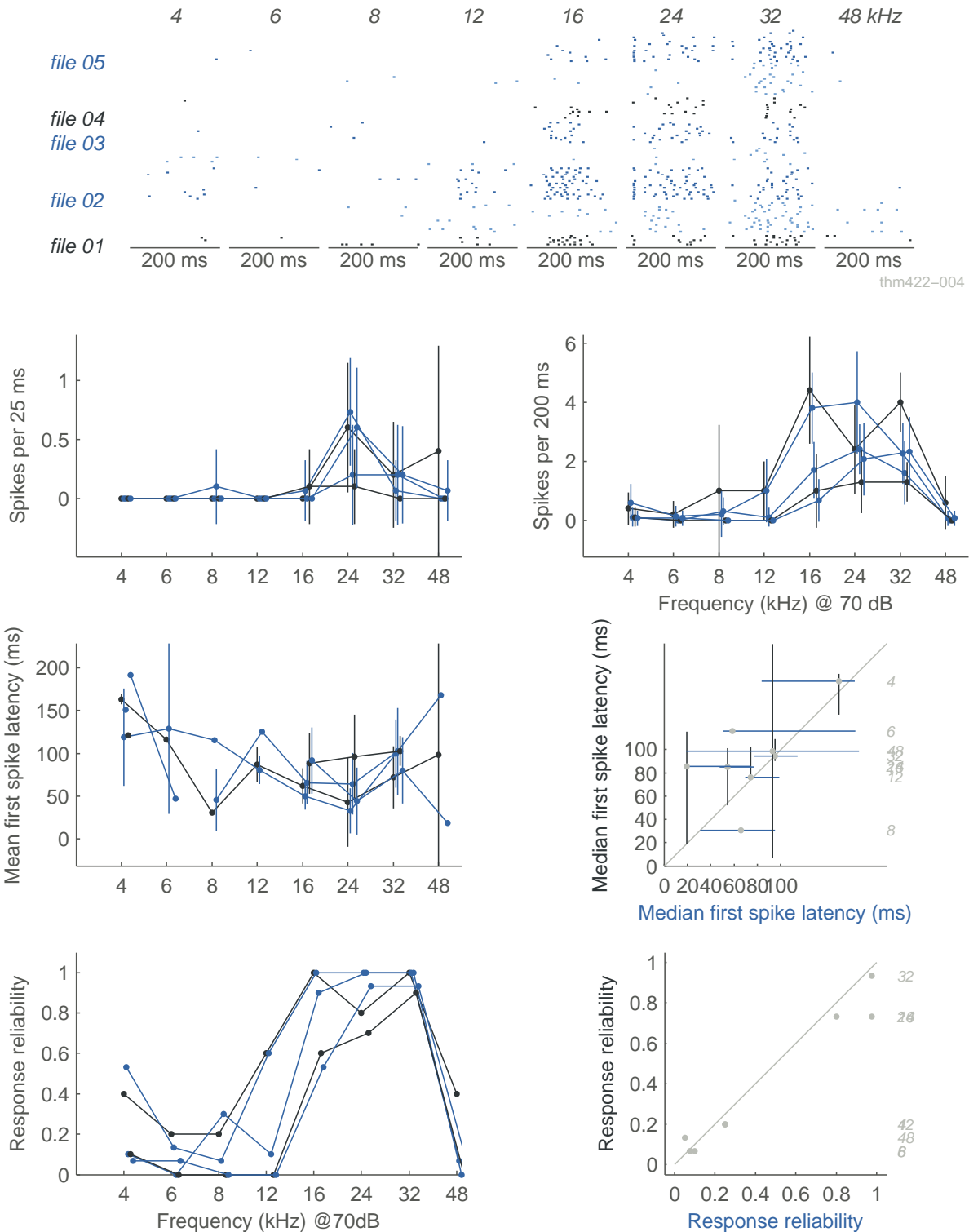
Notes: Chat-Cre (F, Ag, HL) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) DOB 07/14/2009 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) finally, a cell with more spikes, seems nresponsive, however occasional barrages of action potentials follow barrages in lfp signal file 001: tone/wn tuning curve file 002: nothing, short file 003: led/wn stimulation, short pulses file 004: led/wn stimulation, long pulses not many spikes throughout the recording



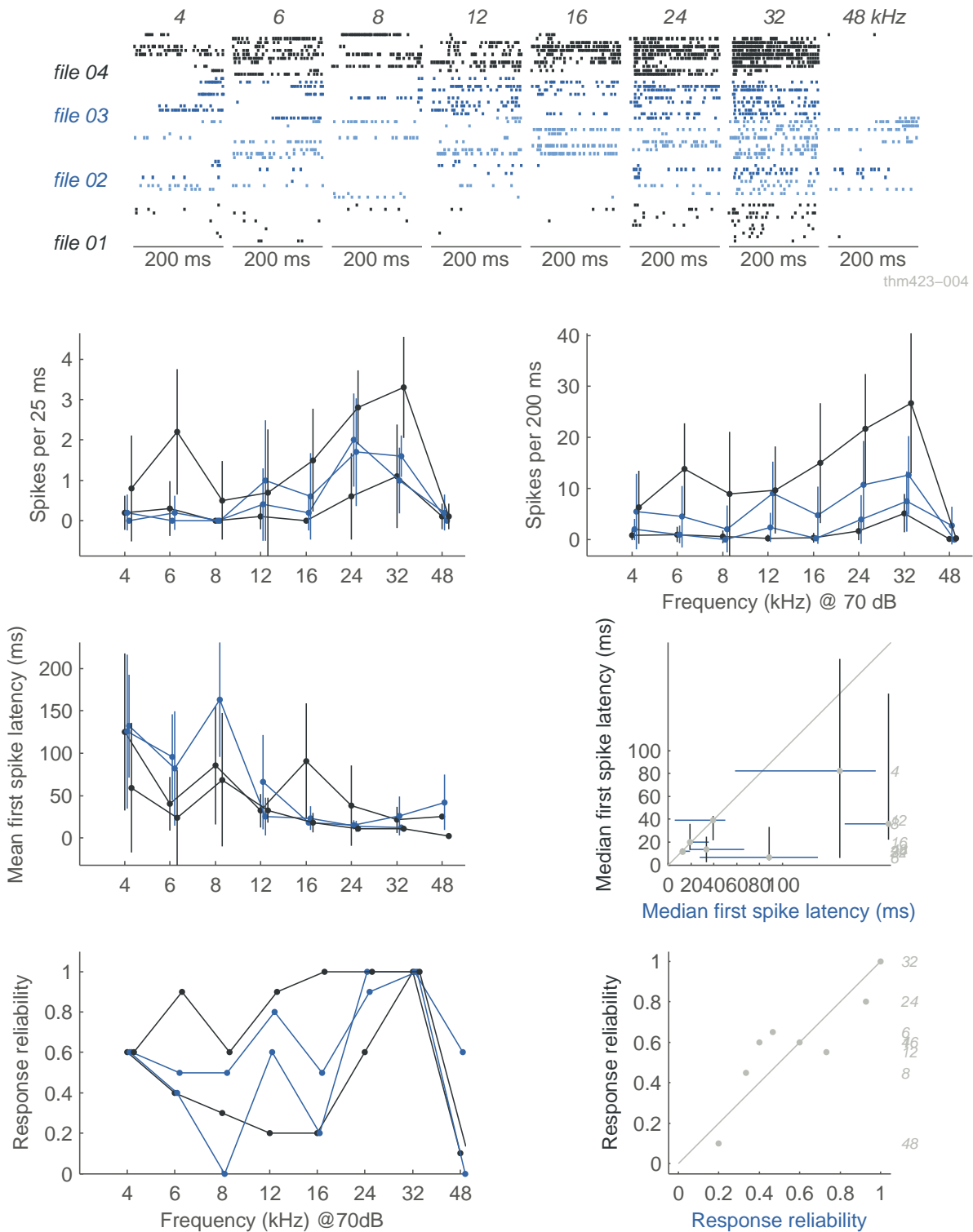
Notes: Chat-Cre (F, Ag, HL) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) DOB 07/14/2009 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) seems nicely responsive and tuned file 001: tone/wn tuning curve file 002: led/wn stimulation, short led pulses file 003: led/wn stimulation, long led pulses file 004: tone/wn tuning curve



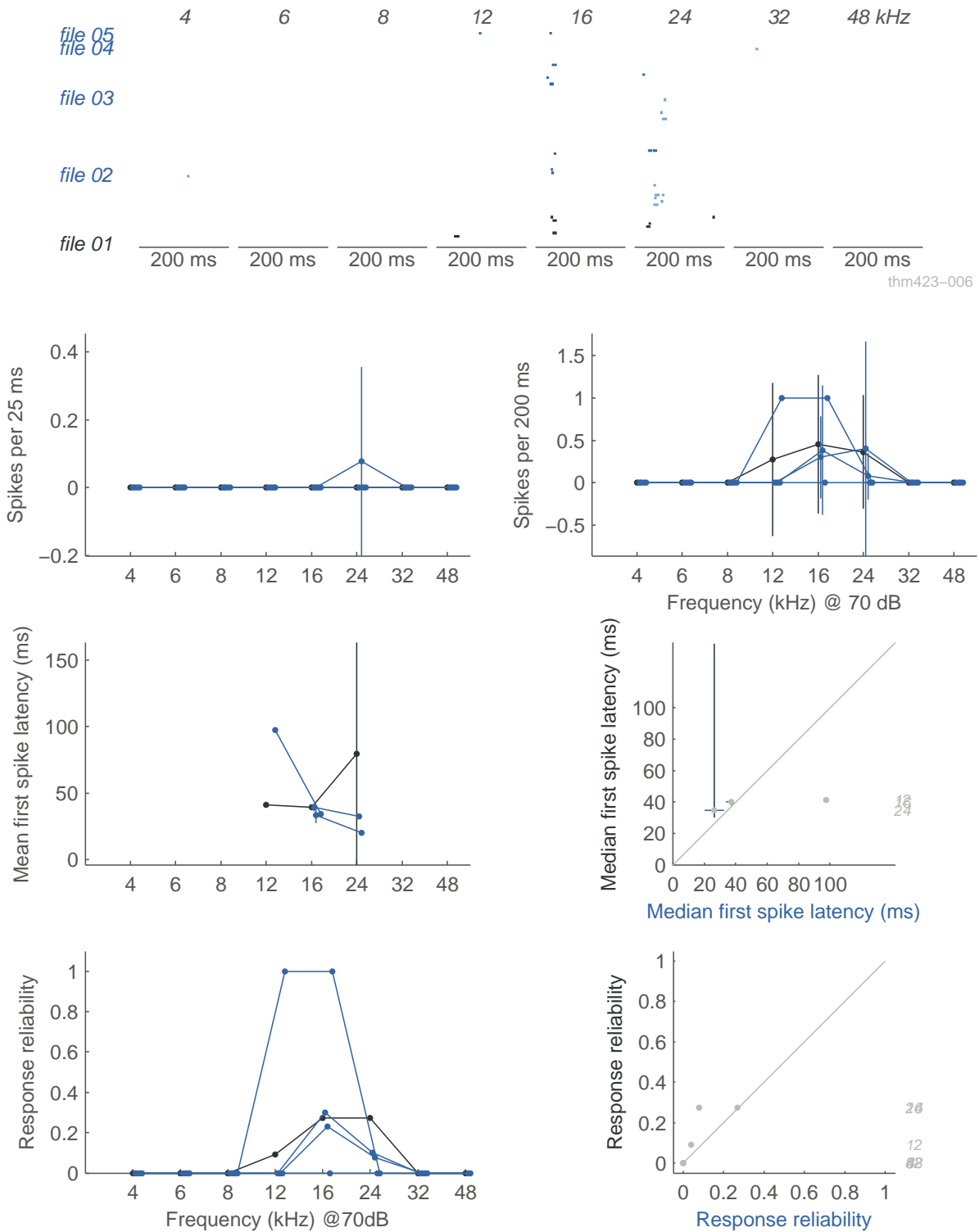
Notes: Chat-Cre (F, Ag, HL) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) DOB 07/14/2009 QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) very sparse firing, but does seem tuned??? (24–32 kHz) file 001: tone/w/n tuning curve file 002: led/w/n stimulation, short led pulses file 003: led/w/n stimulation, long pulses file 004: tone/w/n tuning



Notes: Chat-Cre (F, Ag, NH) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) nice responses, occasional barrages of action potentials are associated with lfp oscillations file 001: tone/wn tuning curve file 002: led/wn stimulation, LONG led pulses file 003: led/wn stimulation, SHORT led pulses file 004: tone/wn tuning curve file 005: led/wn stimulation, long led pulses tungsten lfps sometimes overload the amplifier!!! fewer and fewer spikes???



Notes: Chat-Cre (F, Ag, NH) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) quite a few spikes, seems tuned to 32 kHz, spike trains seem to be associated with lfp oscillations file 001: tone/wn tuning file 002: led/wn protocol, short led pulses file 003: led/wn protocol, long led pulses file 004: tone/wn tuning curve LOT OF SPIKES! (However, it seems I forgot to turn off the light when I was checking on the animal before recording... Orange filter was on, but could that be enough to wake up the cortex???)



Notes: Chat-Cre (F, Ag, NH) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) seems nicely tuned file 001: tone/wn tuning curve file 002: led/wn stimulation, short led pulses file 003: led/wn stimulation, long led pulses cell 'sealed-up' spikes became smaller file 005: one more repeat of led/wn stimulation, long led pulses; hopeless



Notes: Chat-Cre (F, Ag, NH) injected with AAV-EF1-ChR2-YFP on 08/08/2009 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) nice responses, appears binary? file 001, 002: tone/wn tuning curve file 003: led/wn protocol, long pulses file 004: dtto PLUS I TURNED ON THE MICROSCOPE LIGHT (orange filter on) spikes became smaller towards the end