E-stim plan for R19 (3/13/2024-3/20/2024)

Purpose:

1. Function map of FN
2. Difference in facial movement triggered by different stim frequency
3. \* after FN stim, make craniotomy more anterior to see if can trigger jaw movement

Protocol:

1. Function map of FN
   1. Minimal stim: 2 adjacent channels, 100 us duration, 1 uA, single pulse (refer to previous exp: [20240212\_R13](https://docs.google.com/document/d/1M4UpH8cFFRbJsRzjQUj5g5P3iIoZzSl1ir2NNEX4oWk/edit), trial 006-008)
   2. Stim on each pair of channels from top to bottom, totally 32/2 = 16 trialsl
2. Difference in facial movement triggered by different stim frequency
   1. Fixed total duration with different frequency: All channels, 100 us duration, 1 uA, 5-60 Hz

| Fre/Hz | N(train) | Total time |
| --- | --- | --- |
| 5 | 25 | 5 sec |
| 10 | 50 | 5 sec |
| 20 | 100 | 5 sec |
| 30 | 150 | 5 sec |
| 40 | 200 | 5 sec |
|  |  |  |
| 50 | 250 | 5 sec |
| 60 | 300 | 5 sec |

* 1. If surely see this difference happen between 40-50 Hz, narrow trial to 41,42,43… Hz the next day.
  2. Also notice whisker pad, eye and ear may act differently at same fre- whisker always shaking, eye and ear gradually move from shaking to tetanic contraction

(refer to :[20240307\_R16](https://docs.google.com/document/d/1g-HwQV7oD9_kuOEtgLaI1f28gvTmt20jxRAtUBlE-3M/edit), trial 012-016, up to between 40- 50 Hz eye and ear movement start to merge as one)

1. Trigger mouth movement
2. Targeting:
3. Stim: start from all-channel, 100 us duration, 1 uA. If see triggered movement, narrow down.