**Date: 3/14/2024**

**Goal: 1. Function map with minimal protocol;2. frequency**

**Mouse: R19**

**Condition:anes**

**Probe: 12186 (A2x16)**

**Recording time: 2-3PM**

right craniotomy

Shank1- (250,0), shank2 - (-250, 0um)

1. Exp: min

Stim : single pulse, duration (100us negative, 100us positive), 1uA, 2 adjacent channels

Video folder: C:\Users\houlab\Documents\Behavior video\20240314\_R19\_min\_rig1

Ephys folder: C:\Users\houlab\Desktop\Ephys\_Data\20240314\_R19

Ephys 1 - Video 001

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A9,8

Respond channel:

Behavior: none

Ephys 2 - Video 002

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A10, 7

Respond channel:

Behavior:none

Ephys 3 - Video 003

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A11, 6

Respond channel:

Behavior: none

Ephys 4 - Video 004

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A12, 5

Respond channel:

Behavior: none

Ephys 5 - Video 005

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A13,4

Respond channel:

Behavior: none

Ephys 6 - Video 006

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A14,3

Respond channel:

Behavior: none

Ephys 7 - Video 007

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A15, 2

Respond channel:

Behavior:none

Ephys 8 - Video 008

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A16,1

Respond channel:

Behavior: none

Ephys 9 - Video 009

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A25, 24

Respond channel:

Behavior: none

Ephys 10 - Video 010

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A26, 23

Respond channel:

Behavior: none

Ephys 11 - Video 011

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A27, 22

Respond channel:

Behavior: none

Ephys 12 - Video 012

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A28, 21

Respond channel:

Behavior: none

Ephys 13 - Video 013

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A29, 20

Respond channel:

Behavior: none

Ephys 14 - Video 014

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A30,19

Respond channel:

Behavior: none

Ephys 15 - Video 015

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A31, 18

Respond channel:

Behavior: none

Ephys 16 - Video 016

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A32, 17

Respond channel:

Behavior: none

2.fre

Stim : train, duration (100us negative, 100us positive), 1uA, al 32 channels

Video folder: C:\Users\houlab\Documents\Behavior video\20240314\_R19\_fre\_rig1

Ephys folder: C:\Users\houlab\Desktop\Ephys\_Data\20240314\_R19

Ephys 17- Video 017

Time:30 s

Depth: 5300 um

Active channel:

Stim: period 200,000 us, number=25

Respond channel:

Behavior: none

Ephys 18- Video 018

Time:30 s

Depth: 5300 um

Active channel:

Stim: period 100,000 us, number=50

Respond channel:

Behavior:none

Ephys 19- Video 019

Time:30 s

Depth: 5300 um

Active channel:

Stim: period 50,000 us, number=100

Respond channel:

Behavior:none

Change duration to1000us

Ephys 20- Video 020

Time:30 s

Depth: 5300 um

Active channel:

Stim: period 33,333 us, number=150

Respond channel:

Behavior: whiskering, move paw(waking up)

Note: either minimal stim protocol does work because of using a different probe, or not close to FN, for next recording, make some change to stim protocol, (duration change to1000 us ); Also,5 s in total pulse train maybe too long, will make it shorter to 2 sec in next recording

**Date: 3/14/2024**

**Goal: 1. Function map with minimal protocol; 2. frequency**

**Mouse: R19**

**Condition:anes**

**Probe: 12186 (A2x16)**

**Recording time: 4-5PM**

right craniotomy

Shank1- (250, -200 um), shank2 - (-250,-200um)

1. Exp: min

Stim : single pulse, duration (1000us negative, 1000us positive), 1uA, 2 adjacent channels

Video folder: C:\Users\houlab\Documents\Behavior video\20240314\_R19\_min\_rig1

Ephys folder: C:\Users\houlab\Desktop\Ephys\_Data\20240314\_R19\_1

Ephys 23- Video 023

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A9,8

Respond channel:

Behavior: none

Ephys 24 - Video 024

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A10, 7

Respond channel:

Behavior:none

Ephys 25 - Video 025

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A11, 6

Respond channel:

Behavior: none

Ephys 26 - Video 026

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A12, 5

Respond channel:

Behavior: none

Ephys 27 - Video 027

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A13,4

Respond channel:

Behavior: none

Ephys 28 - Video 028

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A14,3

Respond channel:

Behavior: none

Ephys 29 - Video 029

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A15, 2

Respond channel:

Behavior:none

Ephys 30 - Video 030

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 1- A16,1

Respond channel:

Behavior: none

Change to 2 uA

Ephys 31 - Video 031

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A25, 24

Respond channel:

Behavior: none

Ephys 32 - Video 032

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A26, 23

Respond channel:

Behavior: none

Ephys 33 - Video 033

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A27, 22

Respond channel:

Behavior: none

Ephys 34 - Video 034

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A28, 21

Respond channel:

Behavior: none

Ephys 35 - Video 035

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A29, 20

Respond channel:

Behavior: none

Ephys 36 - Video 036

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A30,19

Respond channel:

Behavior: none

Ephys 37 - Video 037

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A31, 18

Respond channel:

Behavior: none

Ephys 38 - Video 038

Time:30 s

Depth: 5300 um

Active channel:

Stim: shank 2- A32, 17

Respond channel:

Behavior: none

2.fre

Stim : train, duration (1000us negative, 1000us positive), 1uA, al 32 channels

Video folder: C:\Users\houlab\Documents\Behavior video\20240314\_R19\_fre\_rig1

Ephys folder: C:\Users\houlab\Desktop\Ephys\_Data\20240314\_R19\_1

Ephys 39- Video 039

Time:30 s

Depth: 5300 um

Active channel:

Stim: period 200,000 us, number=10

Respond channel:

Behavior: none

Ephys 40- Video 040

Time:30 s

Depth: 5300 um

Active channel:

Stim: period 100,000 us, number=20

Respond channel:

Behavior:none

No respond at all ? too anterior? End recording

Note:

Probe 12186 broken: I kept on monitoring signal metrics while probe going down and it looked alright. When finished this recording, when lift probe up from 5300 um to around 800 um, suddenly streaming showed noisier signal. When lift probe up to check, both lower parts of two shanks were missing.

This happened very like that happened to probe 11DD1 when do awake recording in R5. No blood or any other obvious damage to mouse brain but it broke when lifting probe up. R5 had a weak right leg and walk unbalanced after that.