

MHb\_Nicotine.m: This MATLAB code is used to visualize the data presented in Figure 1 (panels C, D, and F). It processes and plots the neuronal firing rate data across different conditions (saline, low nicotine, and high nicotine).

MHb\_single\_unit\_firing\_plot.m: This MATLAB code is used to visualize the data shown in Supplementary Figure 1 (panel C). It handles single-unit firing data, presenting detailed firing patterns under the same experimental conditions.

These codes are written for the MATLAB, tested under MATLAB 2024a version.  
If you have any questions, please contact Ping Dong via [superdongping@gmail.com](mailto:superdongping@gmail.com) or [pingdong@unc.edu](mailto:pingdong@unc.edu)

All the Excel files contain firing rate data from 58 individual units, recorded over a 1200-second period. The units are grouped based on experimental conditions: saline, low nicotine, and high nicotine.