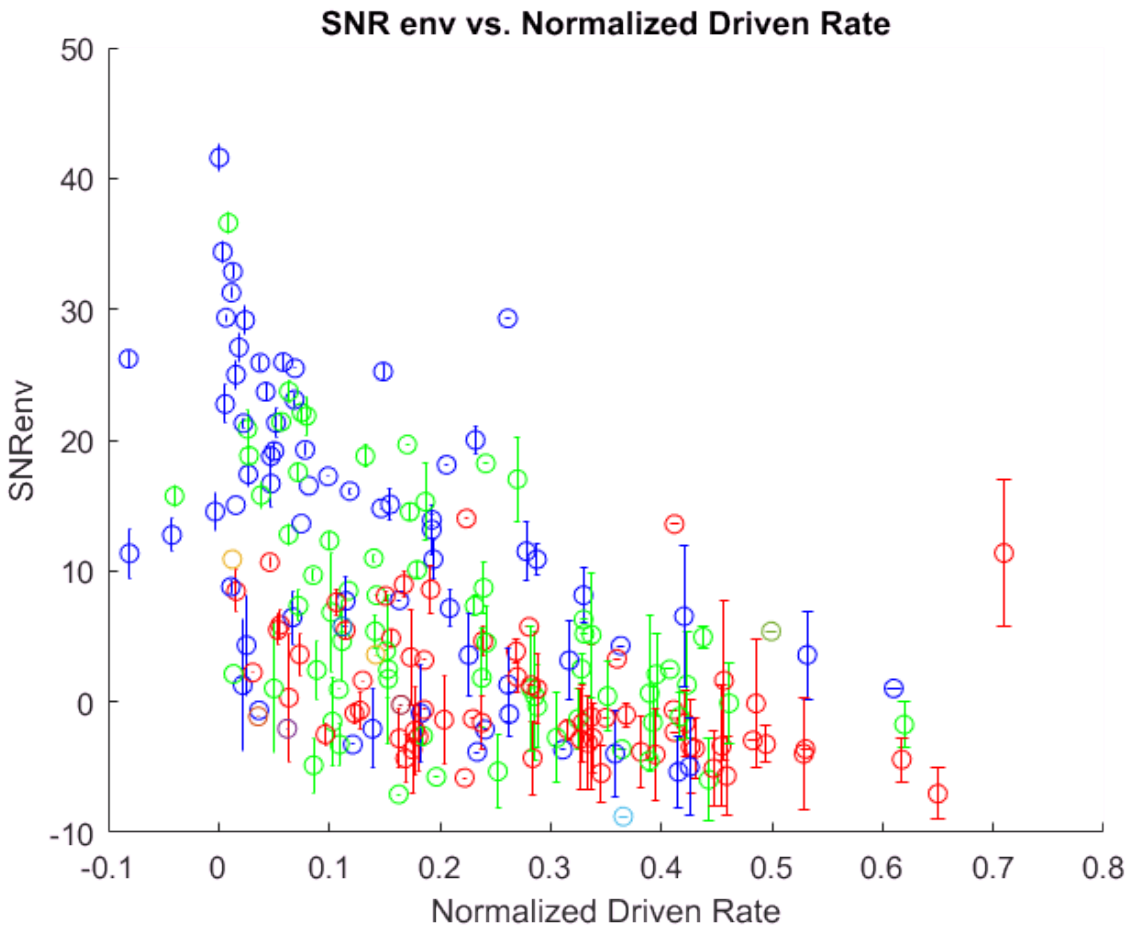
```
clear;
close all;
clc;
```

Load Data

```
load('R:\Users\Satya\SP\Codes\SNRenv-OUTPUT\SumVar.mat');
SNRcolor='rgb';
SNRs=[-6 0 6];
```

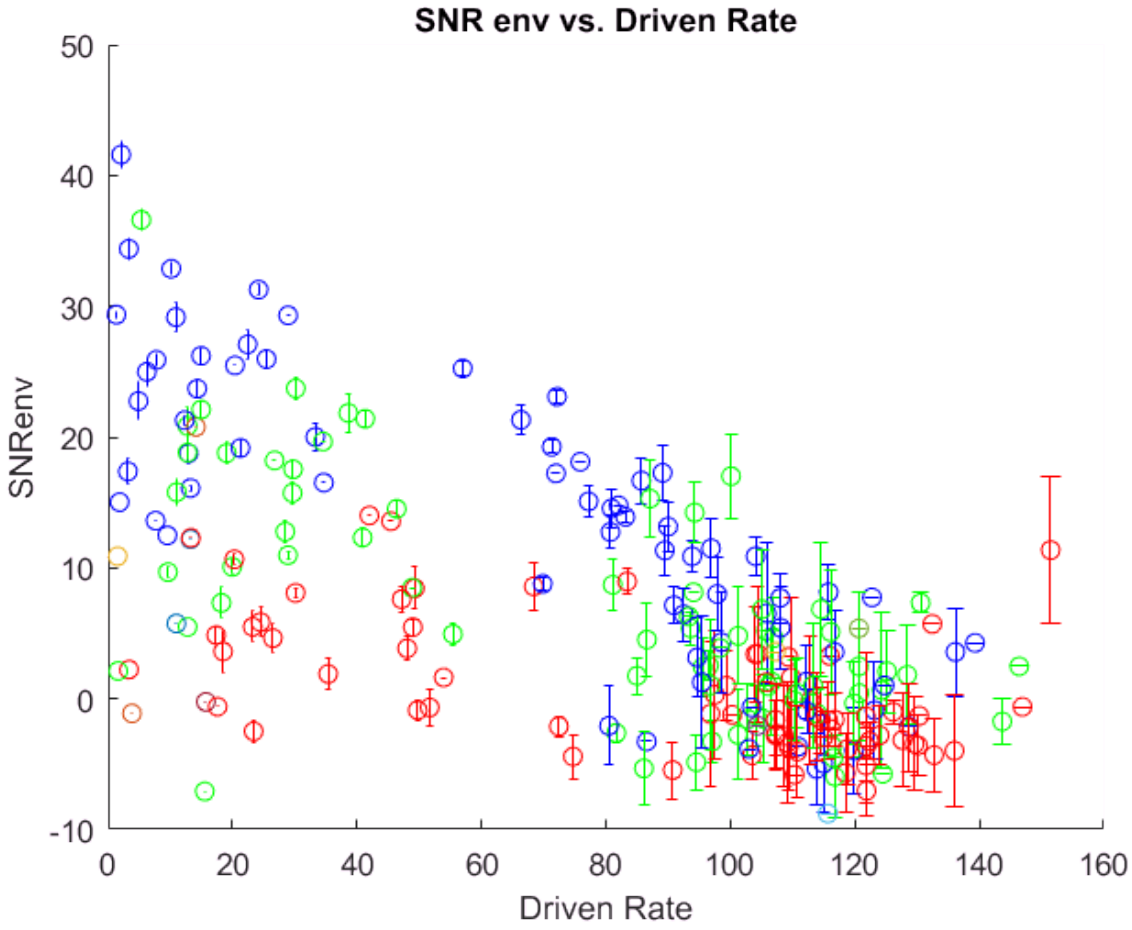
SNR env vs. Normalized Driven Rate

```
hold on;
for i=1:length(SumVar)
    x=(SumVar(i).spkRateSN-SumVar(i).SR)/(SumVar(i).SatR-SumVar(i).SR);
    y=SumVar(i).SNRenvAll;
    errorbar(x, mean(y), std(y), [SNRcolor(SumVar(i).SNR==SNRs) 'o']);
end
hold off;
xlabel('Normalized Driven Rate');
ylabel('SNRenv');
title('SNR env vs. Normalized Driven Rate');
```



SNR env vs. Driven Rate

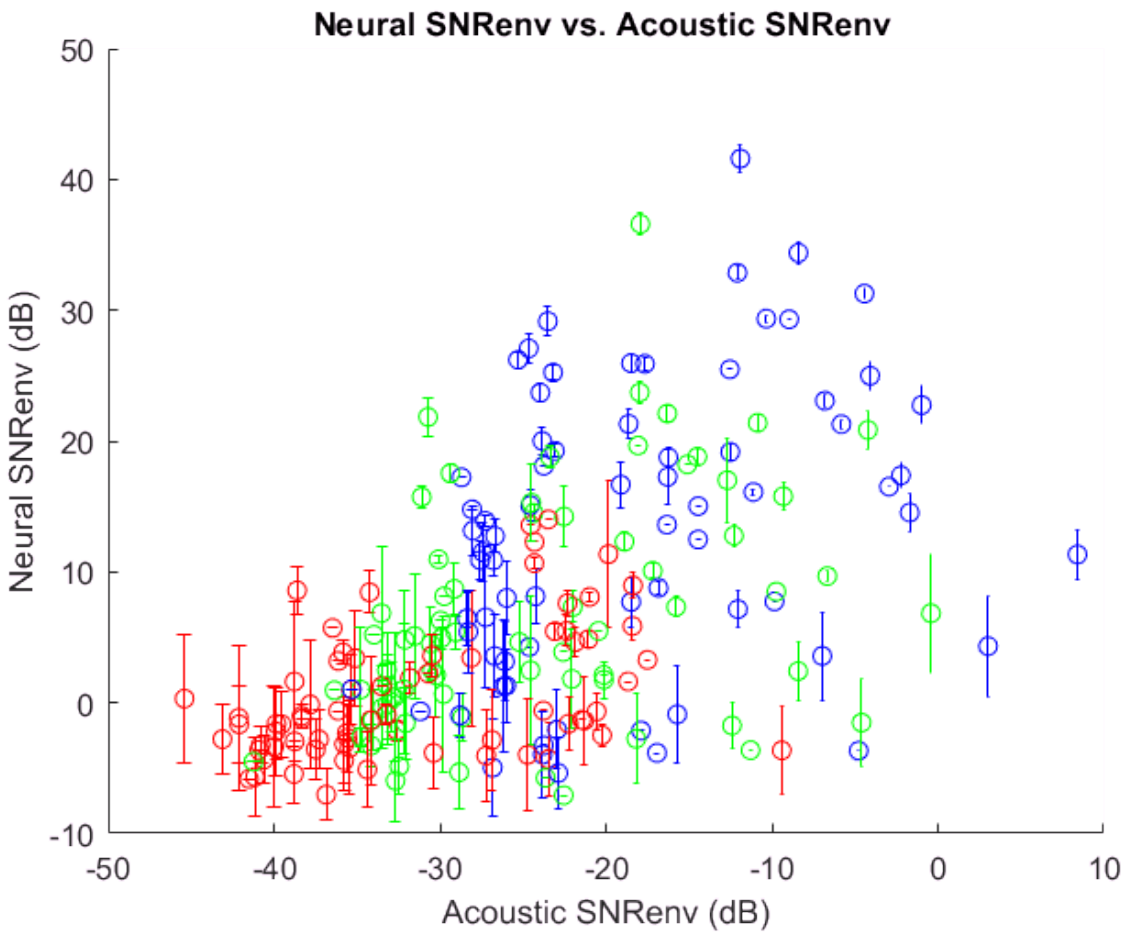
```
figure;
hold on;
for i=1:length(SumVar)
    y=SumVar(i).SNRenvAll;
    errorbar(SumVar(i).spkRateSN, mean(y), std(y), [SNRcolor(SumVar(i).SNR==SNRs) 'o']);
end
hold off;
xlabel('Driven Rate');
ylabel('SNRenv');
title('SNR env vs. Driven Rate');
```



Acoustic SNRenv vs. Neural SNRenv

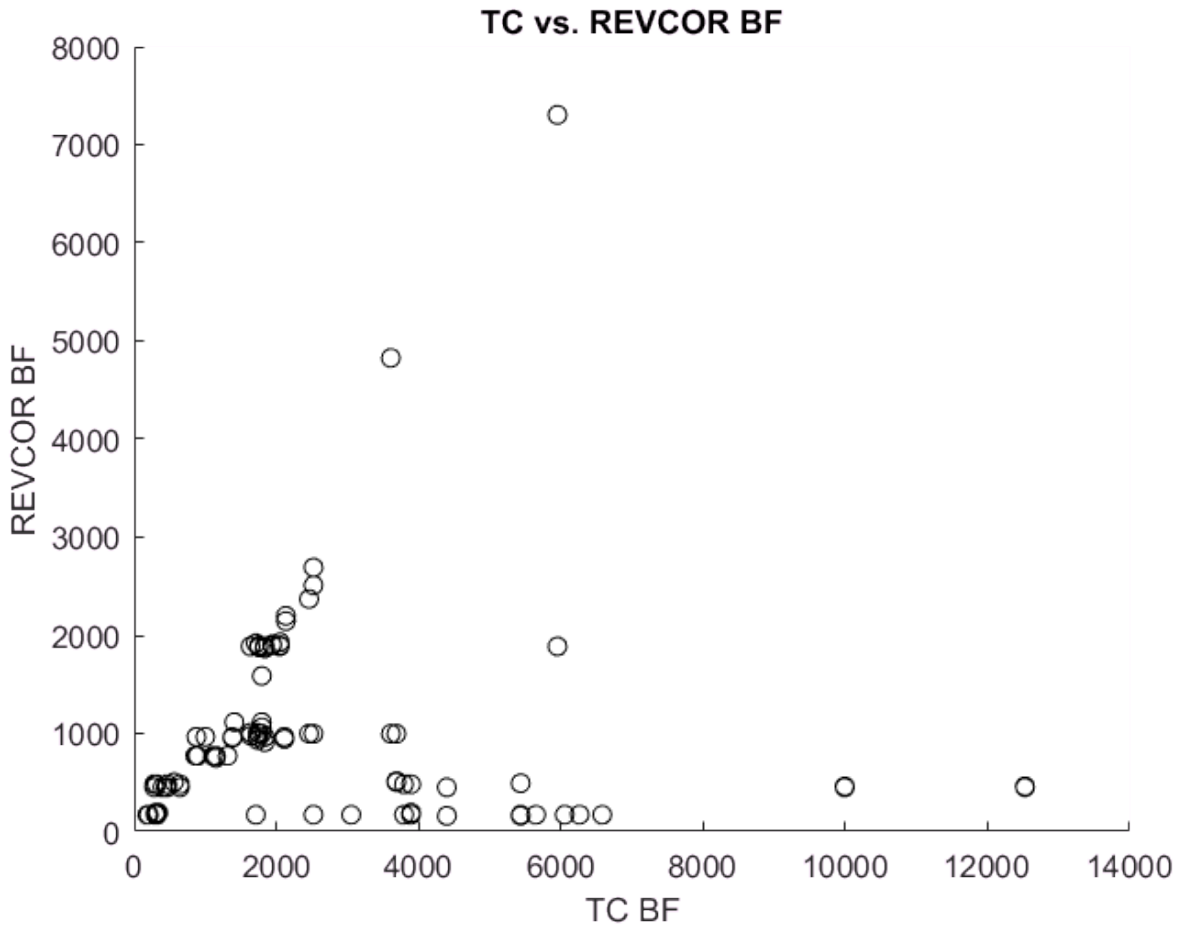
```
figure;

hold on;
for i=1:length(SumVar)
    y=SumVar(i).SNRenvAll;
    errorbar(SumVar(i).SNRenvACST, mean(y), std(y), [SNRcolor(SumVar(i).SNR==SNRs) 'o']);
end
hold off;
xlabel('Acoustic SNRenv (dB)');
```

```
ylabel('Neural SNRenv (dB)');
title('Neural SNRenv vs. Acoustic SNRenv ');
```



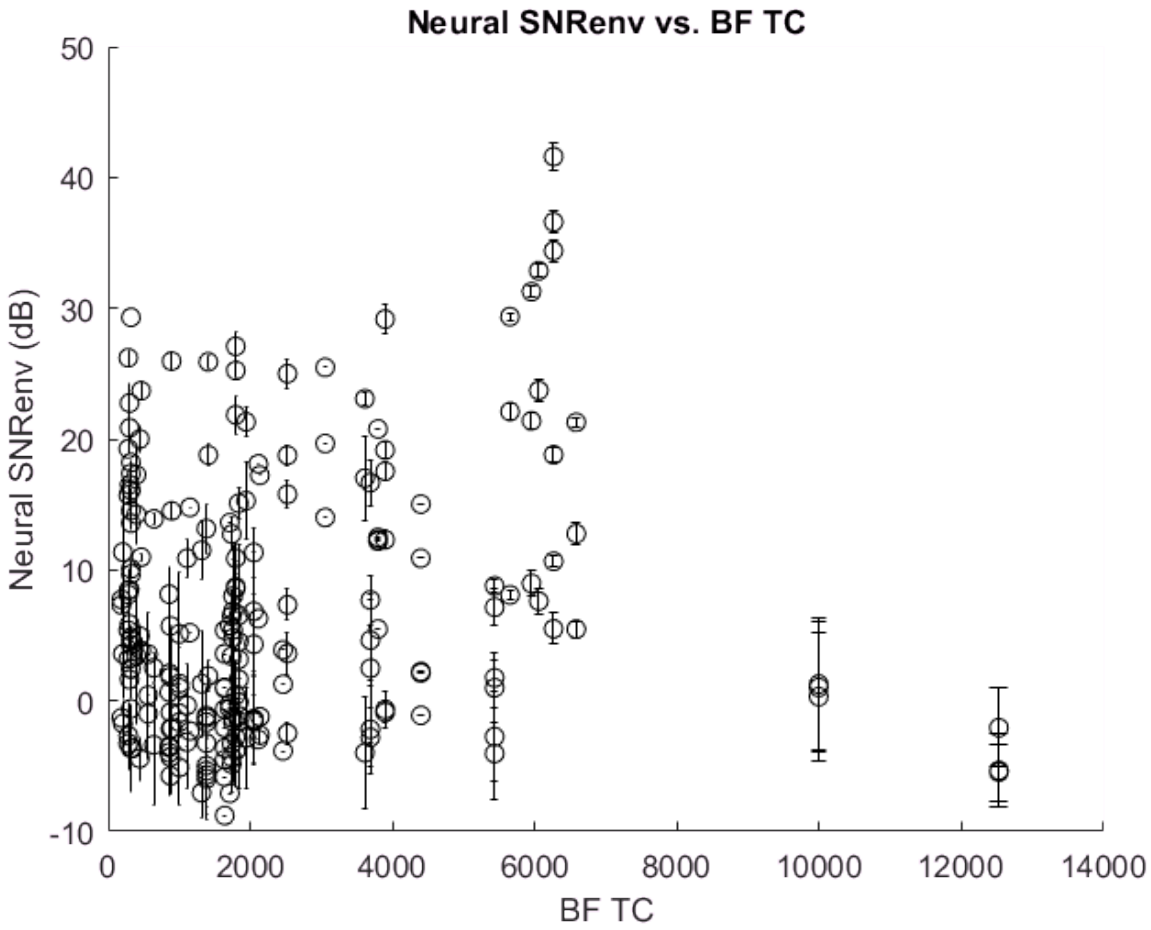
Tuning Curve BF vs REVCOR BF

```
scatter([SumVar.BF_TC],[SumVar.BF_revcor],'k');
xlabel('TC BF');
ylabel('REVCOR BF');
title('TC vs. REVCOR BF');
```



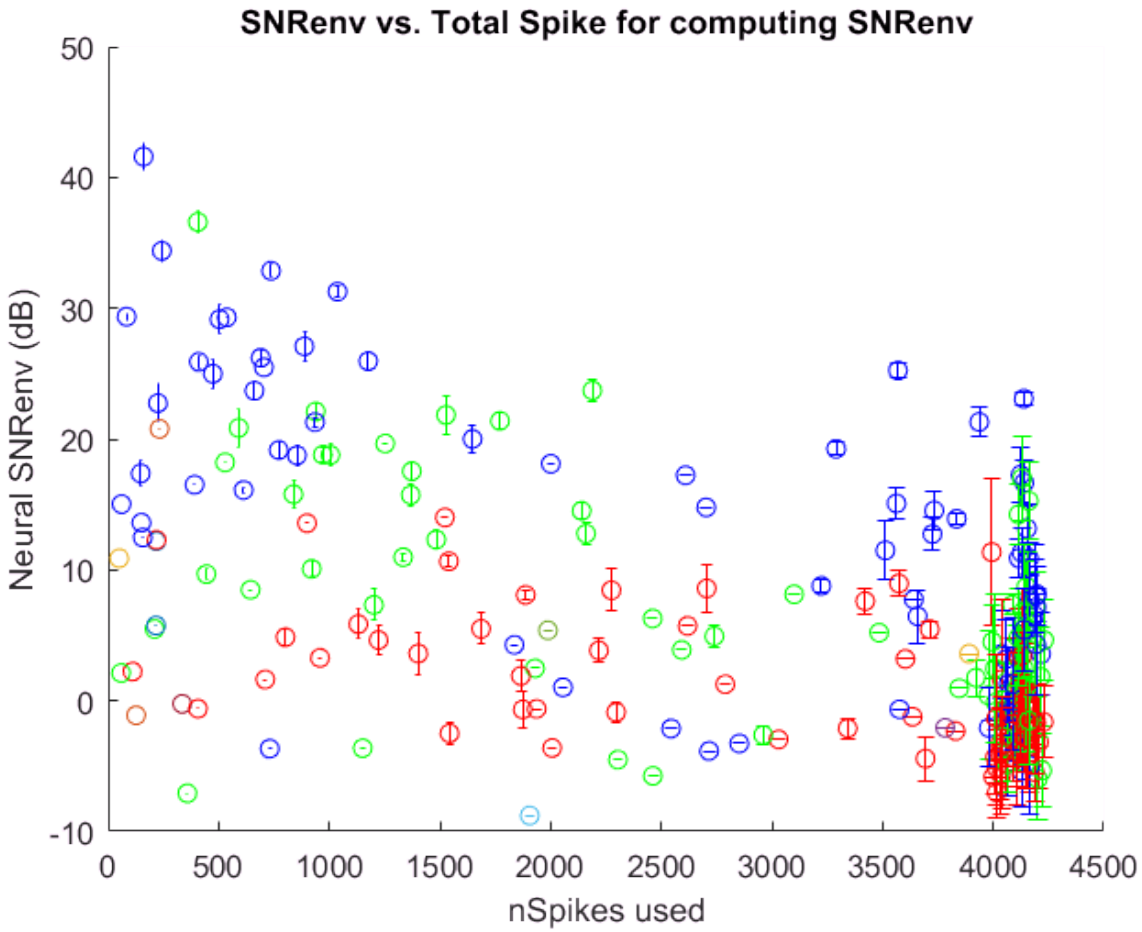
SNRenv vs CF

```
figure;
hold on;
for i=1:length(SumVar)
    y=SumVar(i).SNRenvAll;
    errorbar(SumVar(i).BF_TC, mean(y), std(y), 'ko');
end
hold off;
xlabel('BF TC');
ylabel('Neural SNRenv (dB)');
title('Neural SNRenv vs. BF TC');
```



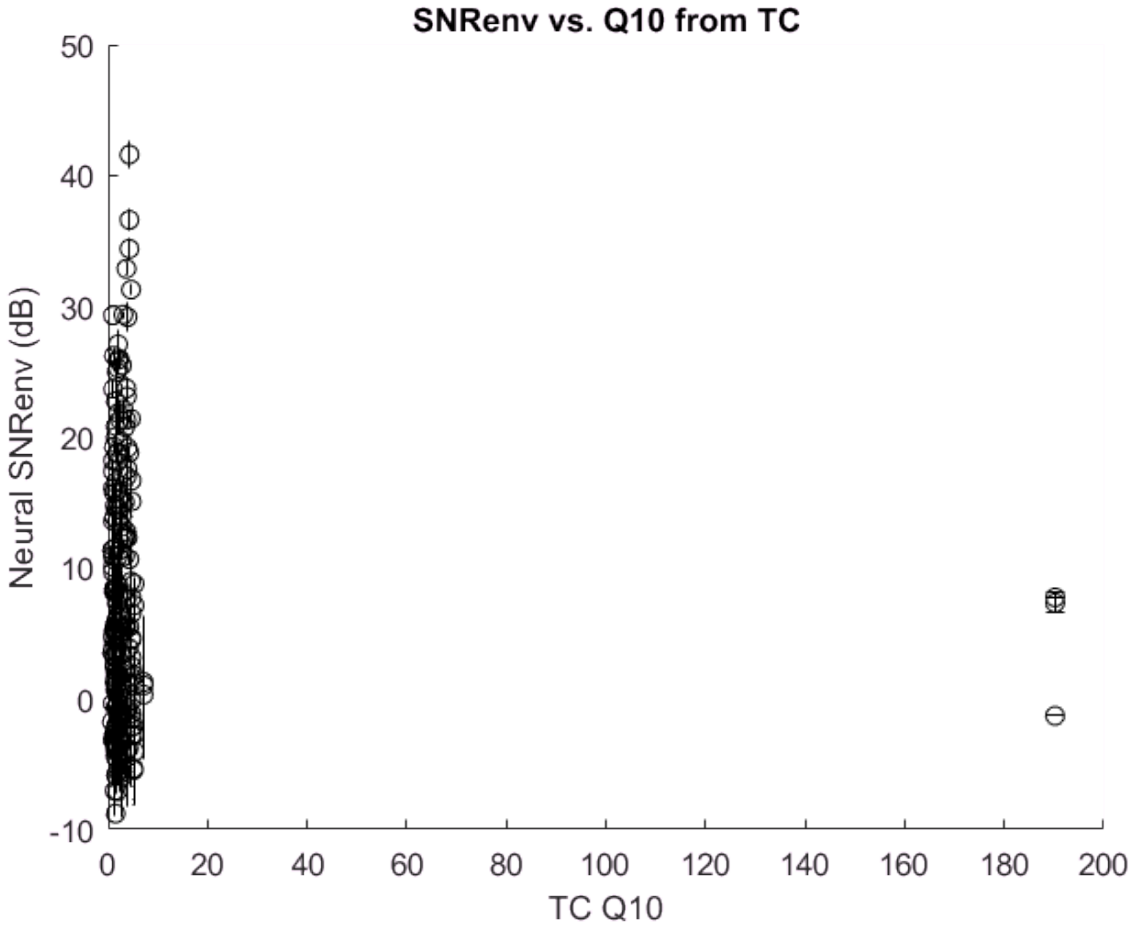
SNRenv vs. Total Spike for computing SNRenv

```
figure;
hold on;
for i=1:length(SumVar)
    y=SumVar(i).SNRenvAll;
    errorbar(SumVar(i).nSpikesSN, mean(y), std(y), [SNRcolor(SumVar(i).SNR==SNRs) 'o']);
end
hold off;
xlabel('nSpikes used');
ylabel('Neural SNRenv (dB)');
title('SNRenv vs. Total Spike for computing SNRenv');
```



SNRenv vs. Q10 from TC

```
figure;
hold on;
for i=1:length(SumVar)
    y=SumVar(i).SNRenvAll;
    errorbar(SumVar(i).Q10_TC, mean(y), std(y), 'ko');
end
hold off;
xlabel('TC Q10');
ylabel('Neural SNRenv (dB)');
title('SNRenv vs. Q10 from TC');
```


SNRenv vs. Q10 from TC
Neural SNRenv (dB)
TC Q10
50
40
30
20
10
0
-10
0
20
40
60
80
100
120
140
160
180
200