

```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

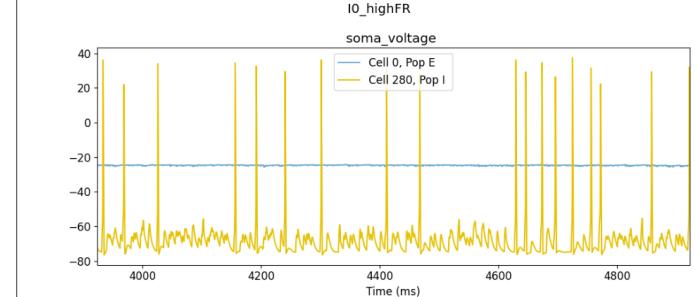
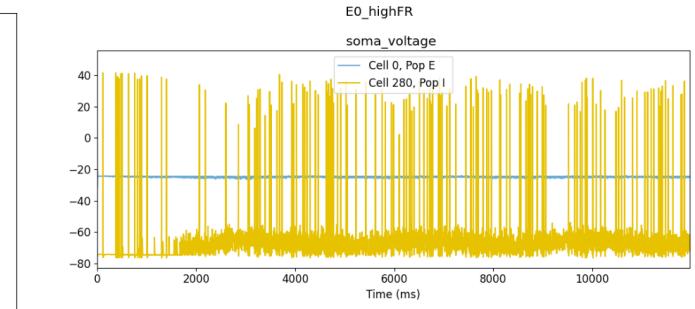
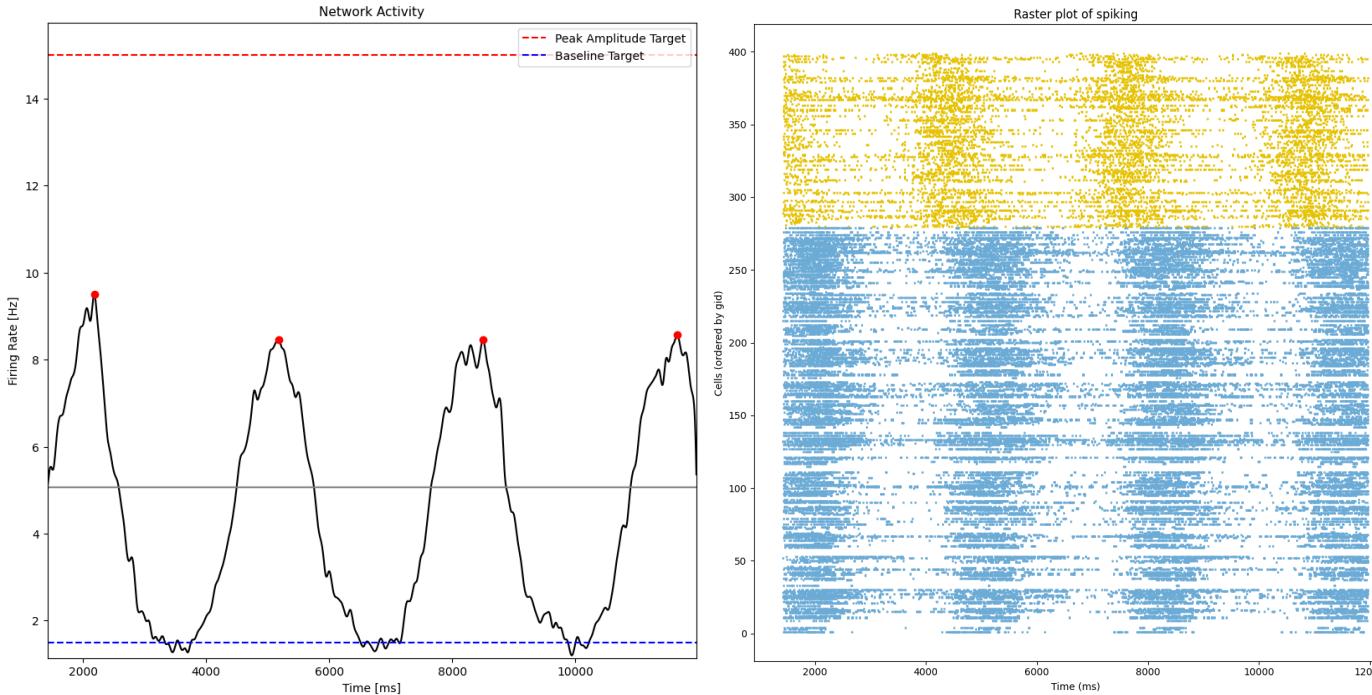
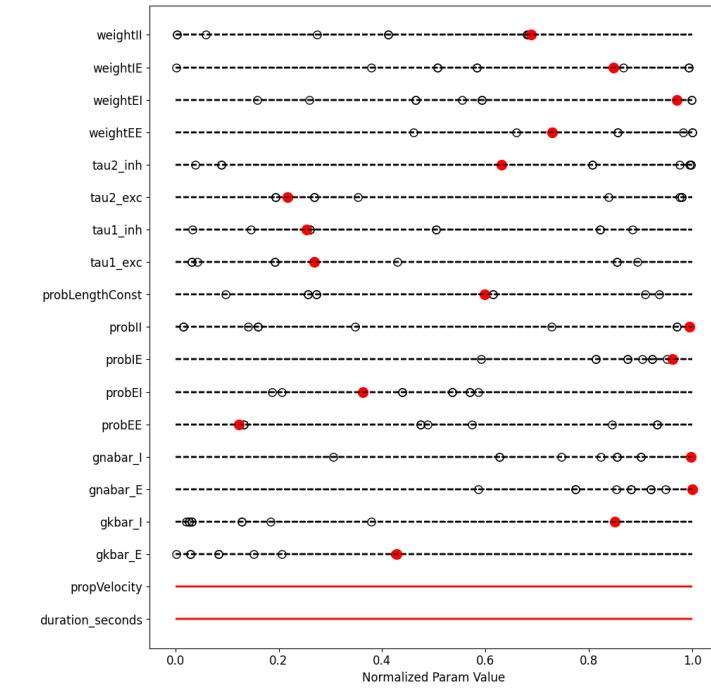
```

```

burstAmp_Fitness: {'Value': 3.6870872645709665, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.3341687552213868, 'Fit': 1.0050251150801774}
IBI_fitness: {'Value': 3157.5, 'Fit': 1.086889840540404}
baseline_fitness: {'Value': 4.579053948134078, 'Fit': 1000}
slopeFitness: {'Value': -9.678745128511474e-06, 'Fit': 1.0000193576776144}
thresh: {'Value': 5.065065302533625, 'Fit': 0.9370062724958484}
sustain_oscillation_fitness: {'Value': 87.88257339163023, 'Fit': 11.28512313587106}
E_rate_fitness: {'Value': 2.4563492063492065, 'Fit': 7.519204271932153}
I_rate_fitness: {'Value': 15.435185185185185, 'Fit': 4.290835552601959}
maxFitness: 1000
average_fitness: 225.23601150513323
average_scaled_fitness: 224.50937192236273

```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



Data Directory: /NERSC/output/240506\_Run1\_overnightRun/gen\_0/gen\_0\_cand\_2\_data.json

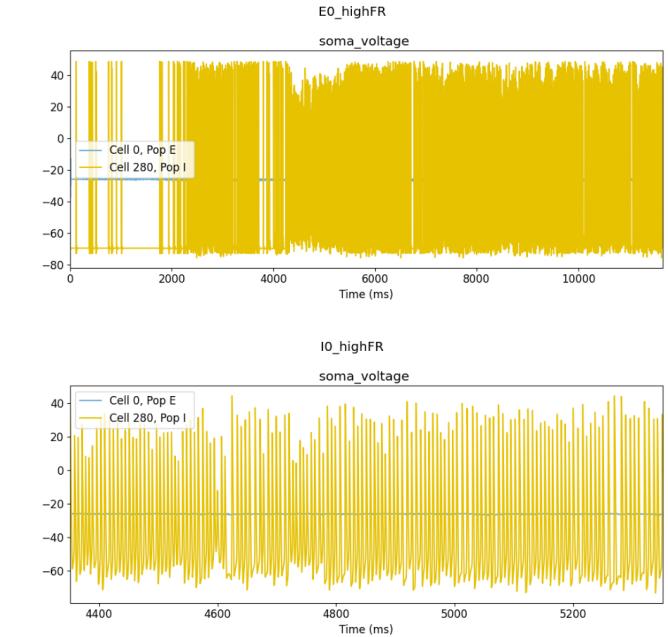
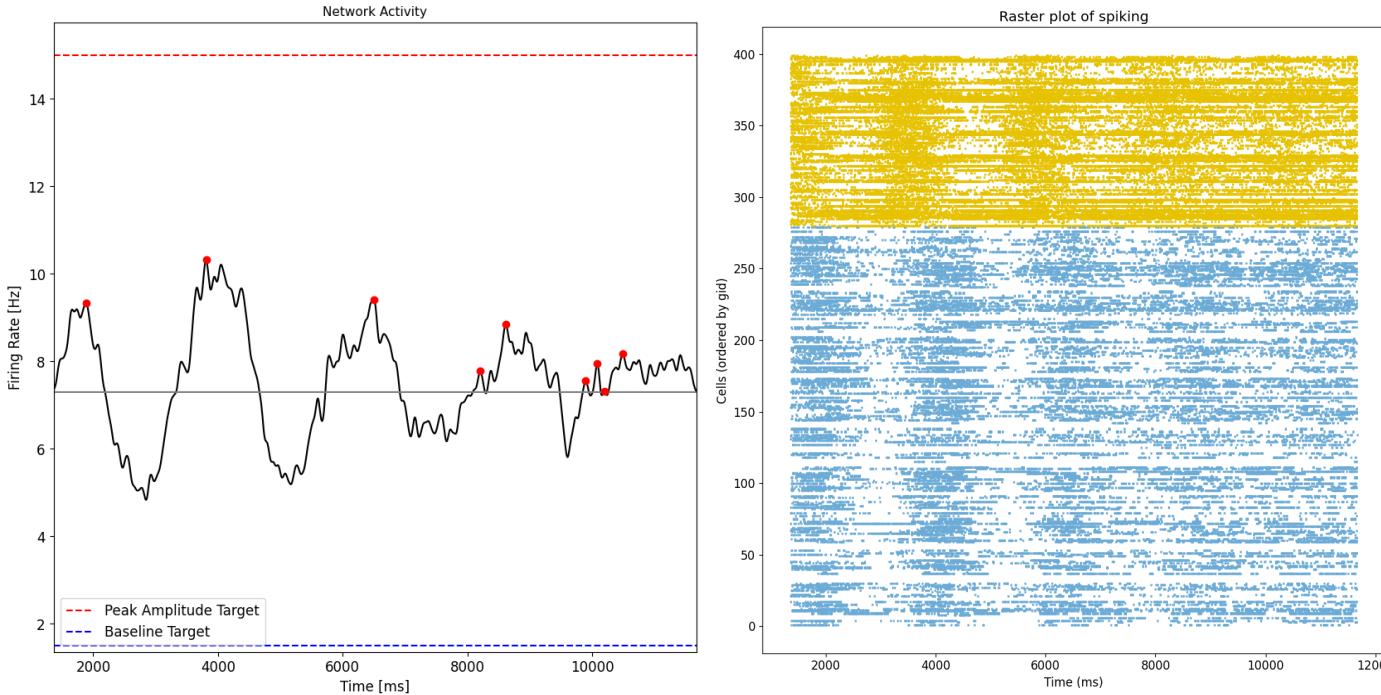
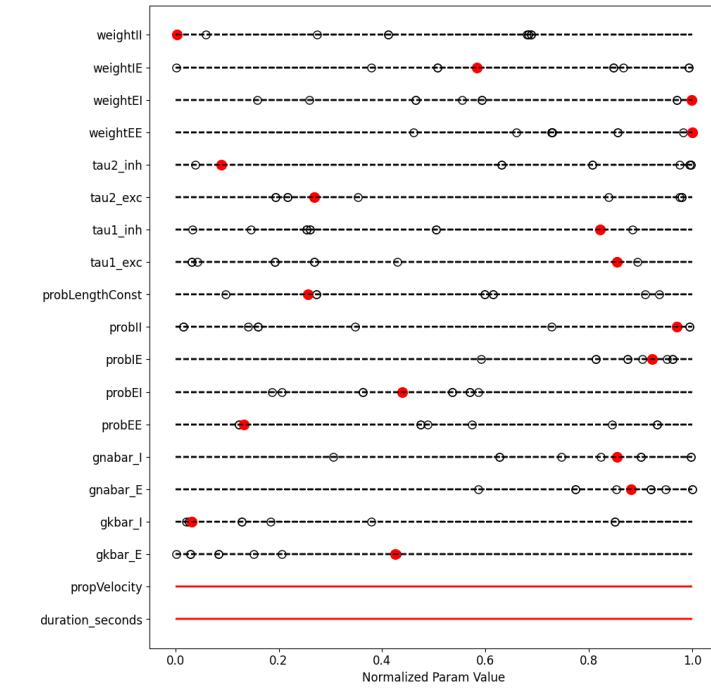
SimLabel: gen\_0\_cand\_2

Generation Rank: 6/11

```
rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_oscil: {'target': 100, 'width': 5, 'min': 75}
```

```
burstAmp_Fitness: {'Value': 1.2214848131507487, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.7717041800643087, 'Fit': 13.876892967069857}
IBI_fitness: {'Value': 1074.375, 'Fit': 2.875251703601312}
baseline_fitness: {'Value': 7.522333382877726, 'Fit': 1000}
slopeFitness: {'Value': 0.00010637629367410511, 'Fit': 1.000212775220785}
thresh: {'Value': 7.294823835915531, 'Fit': 1000}
sustain_oscillation_fitness: {'Value': 85.8213616489694, 'Fit': 17.042797325218864}
E_rate_fitness: {'Value': 1.6666666666666665, 'Fit': 10.312258501325767}
I_rate_fitness: {'Value': 23.324074074074073, 'Fit': 1.949538333691855}
maxFitness: 1000
average_fitness: 338.561883511792
average_scaled_fitness: 337.89964227551786
```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



Data Directory: /NERSC/output/240506\_Run1\_overnightRun/gen\_0/gen\_0\_cand\_3\_data.json

SimLabel: gen\_0\_cand\_3

Generation Rank: 7/11

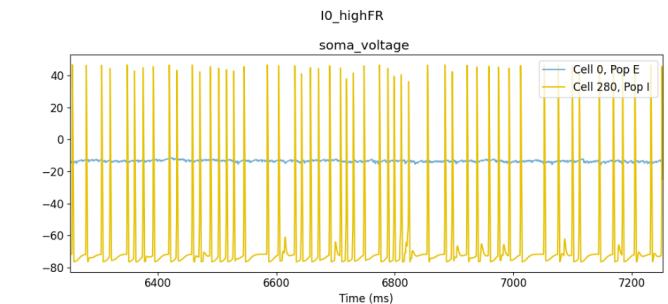
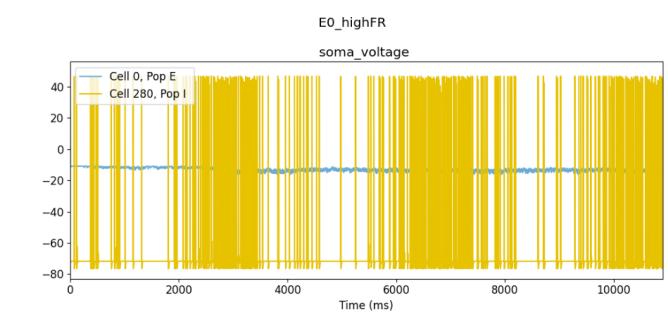
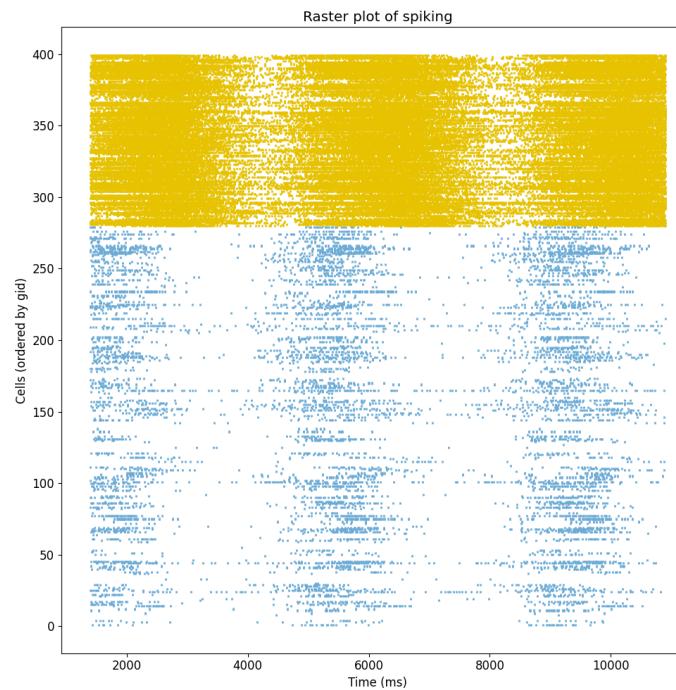
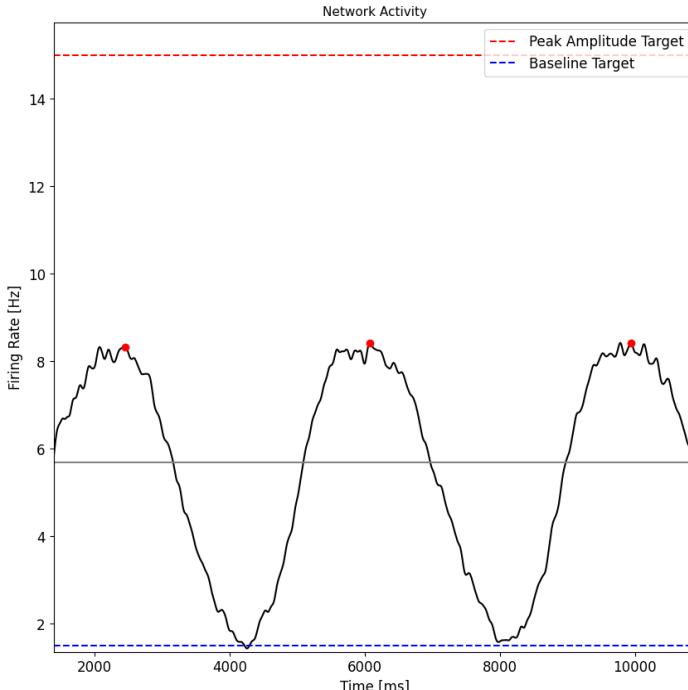
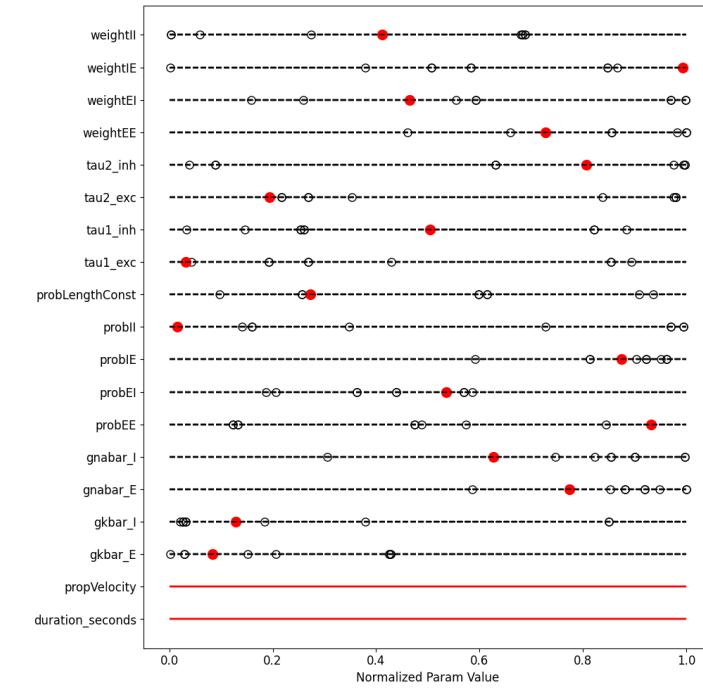
```
rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}
```

```
burstAmp_Fitness: {'Value': 2.6996600940445714, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.27510316368638243, 'Fit': 1.4181894429499076}
IBI_fitness: {'Value': 3742.5, 'Fit': 1.452155379040199}
baseline_fitness: {'Value': 5.687433702170394, 'Fit': 1000}
slopeFitness: {'Value': 0.0001194237172909505, 'Fit': 1.0002388759609016}
thresh: {'Value': 5.687618660351873, 'Fit': 0.5027719153388304}
sustain_oscillation_fitness: {'Value': 79.262960649594, 'Fit': 63.26978405494912}
E_rate_fitness: {'Value': 0.8849206349206349, 'Fit': 1000}
I_rate_fitness: {'Value': 18.416666666666664, 'Fit': 3.1846211486585325}
maxFitness: 1000
average_fitness: 341.2030845352108
average_scaled_fitness: 340.87169333401437
```

binSize: 7.5

gaussianSigma: 30.0

thresholdBurst: 1.0



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

```

```

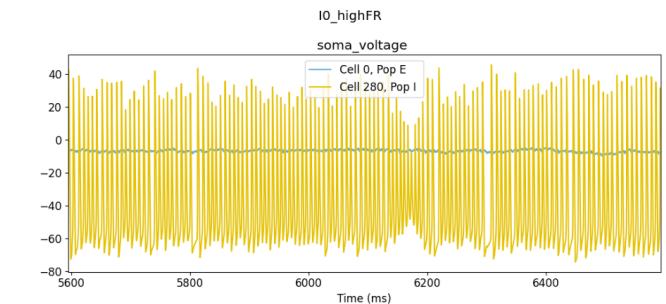
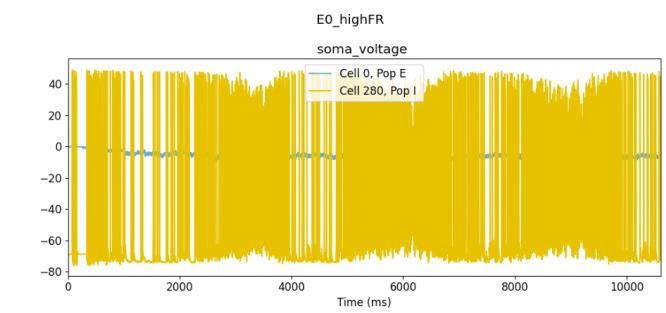
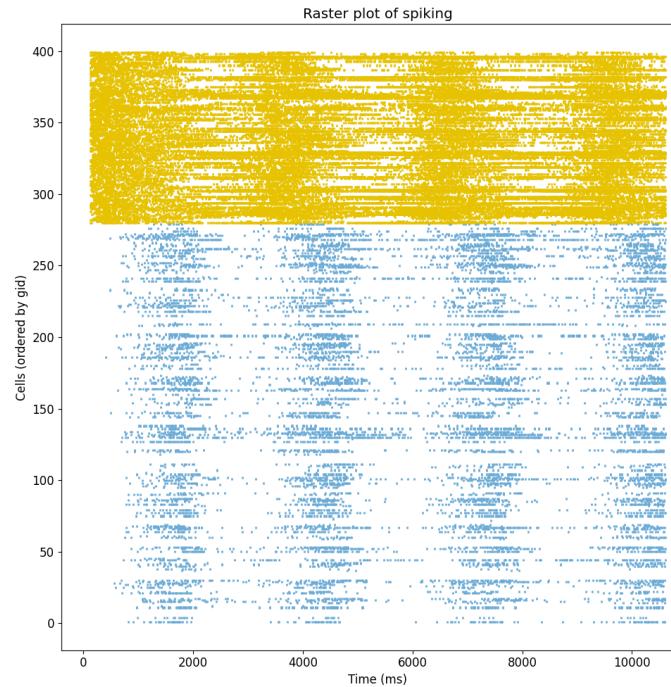
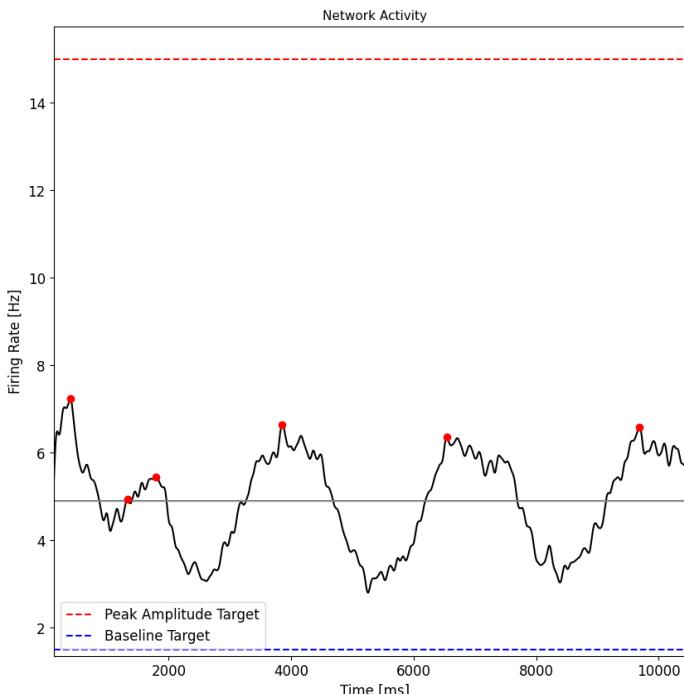
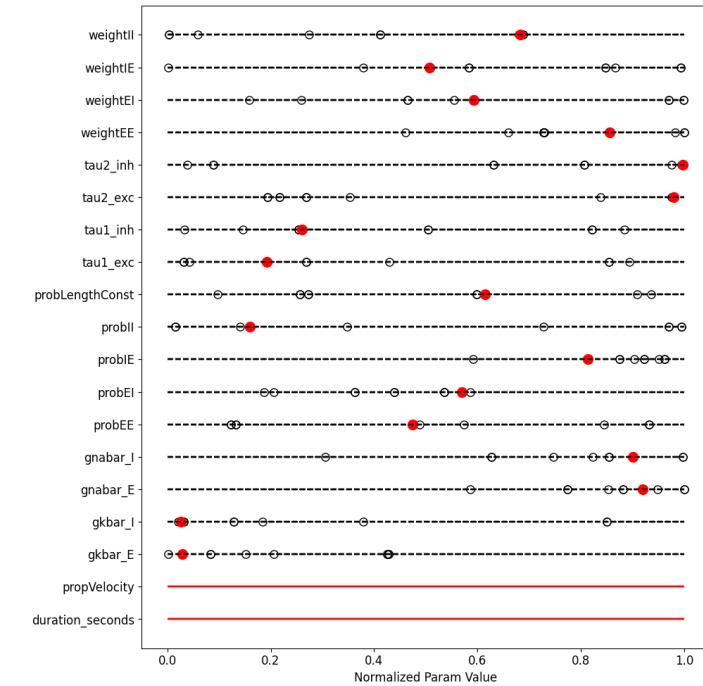
burstAmp_Fitness: {'Value': 1.3011525174545215, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.5653710247349822, 'Fit': 4.023797660711818}
IBI_fitness: {'Value': 1858.5, 'Fit': 2.0427056287575303}
baseline_fitness: {'Value': 4.923173427191922, 'Fit': 1000}
slopeFitness: {'Value': 9.917909309178078e-05, 'Fit': 1.0001983778604695}
thresh: {'Value': 4.89802190052201, 'Fit': 1.1073592197174043}
sustain_oscillation_fitness: {'Value': 87.44534665833854, 'Fit': 12.316387199820213}
E_rate_fitness: {'Value': 0.5793650793650794, 'Fit': 1000}
I_rate_fitness: {'Value': 47.78703703703704, 'Fit': 5.9221745477442305}
maxFitness: 1000
average_fitness: 336.2680691816235
average_scaled_fitness: 335.60354092099647

```

```

binSize: 7.5
gaussianSigma: 30.0
thresholdBurst: 1.0

```



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_oscil: {'target': 100, 'width': 5, 'min': 75}

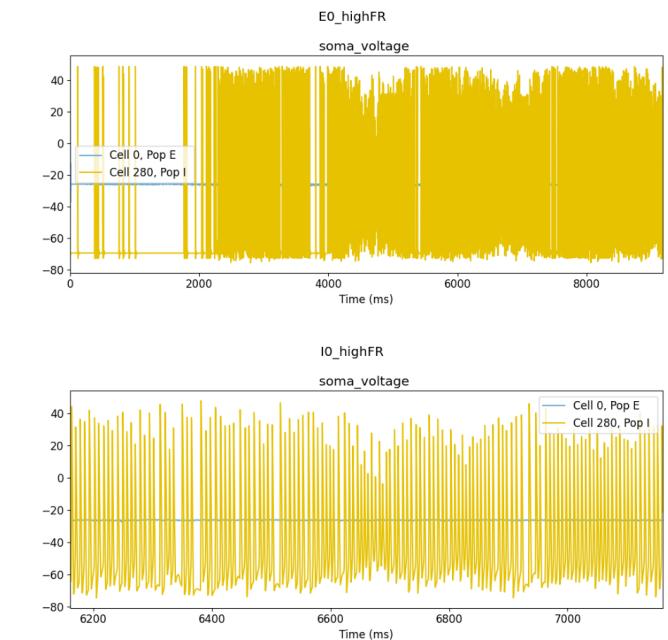
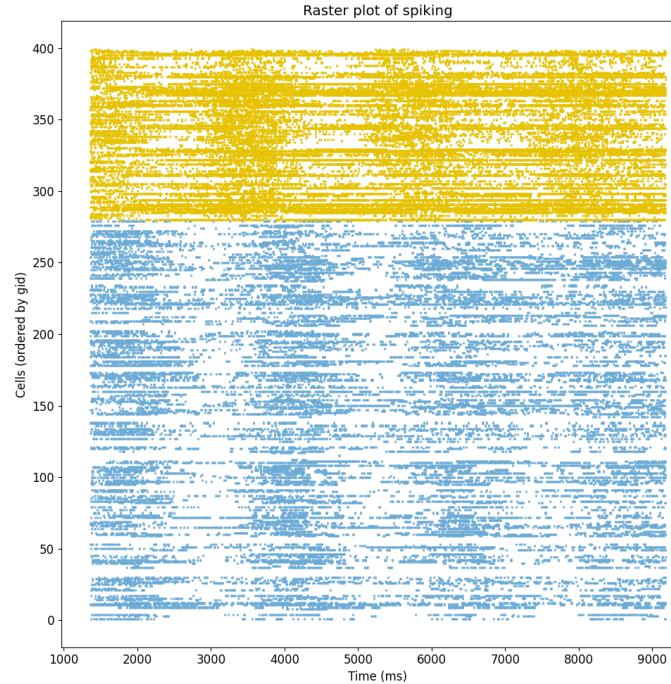
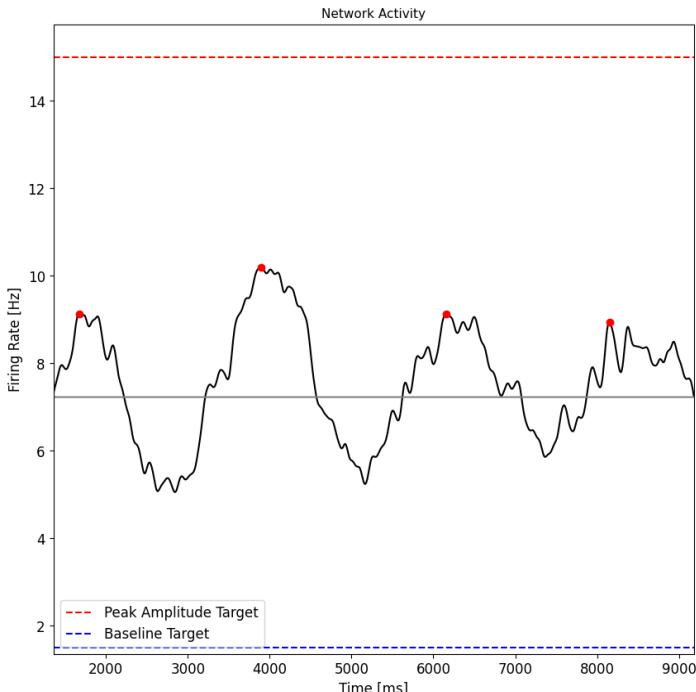
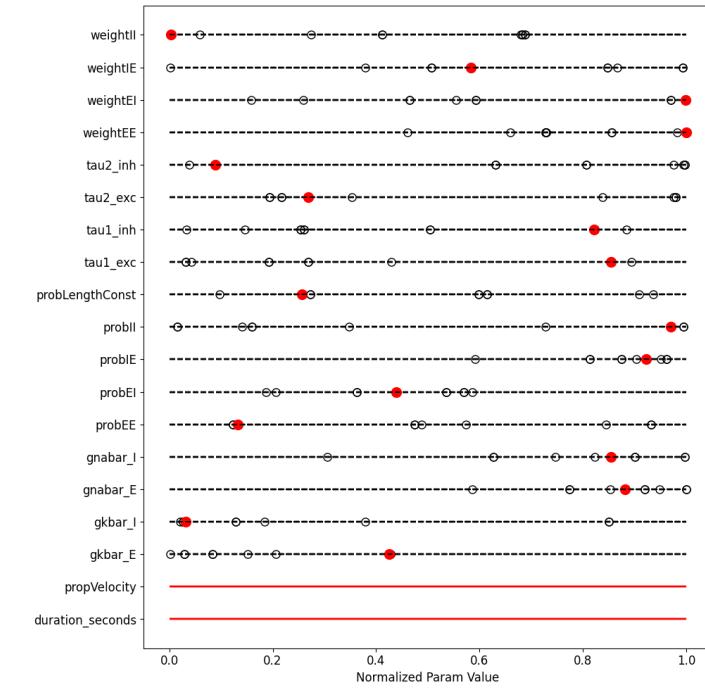
```

```

burstAmp_Fitness: {'Value': 2.1203174364079773, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.4357298474945534, 'Fit': 1.8485084764507018}
IBI_fitness: {'Value': 2160.0, 'Fit': 1.5246496076130907}
baseline_fitness: {'Value': 7.592980296160551, 'Fit': 1000}
slopeFitness: {'Value': 0.0002599365554891534, 'Fit': 1.0005200082684247}
thresh: {'Value': 7.225392102270848, 'Fit': 1000}
sustain_oscillation_fitness: {'Value': 78.20224719101122, 'Fit': 78.22197057985548}
E_rate_fitness: {'Value': 1.6428571428571428, 'Fit': 10.410939651403002}
I_rate_fitness: {'Value': 23.25, 'Fit': 1.9640329759698474}
maxFitness: 1000
average_fitness: 343.88562458884013
average_scaled_fitness: 343.2285115738094

```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



Data Directory: /NERSC/output/240430\_Run2\_debug\_node\_run/gen\_6/gen\_6\_cand\_4\_data.json

SimLabel: gen\_6\_cand\_4

Generation Rank: 10/11

```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

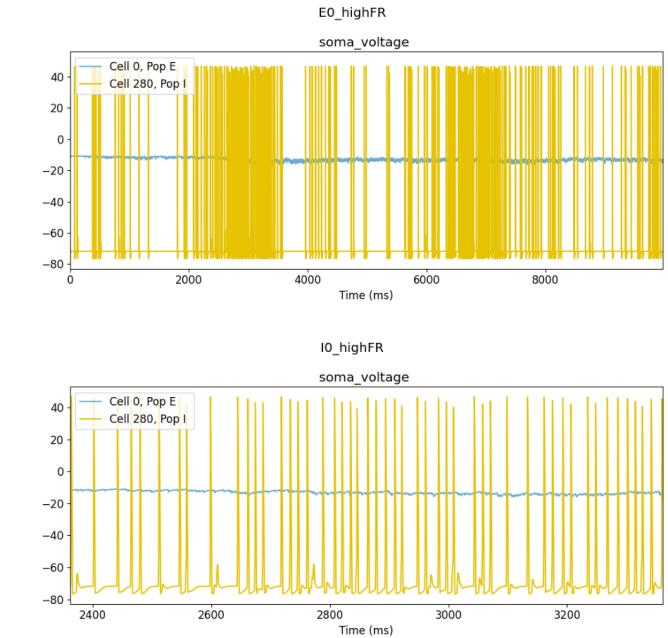
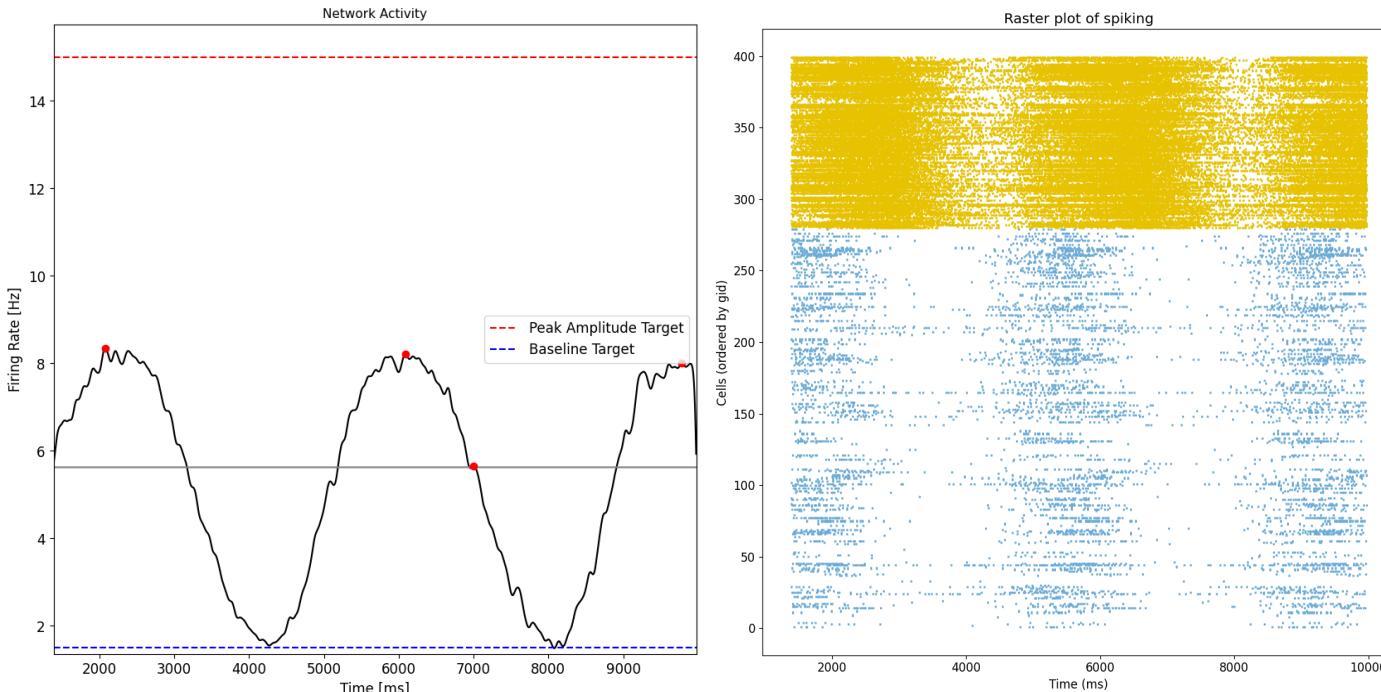
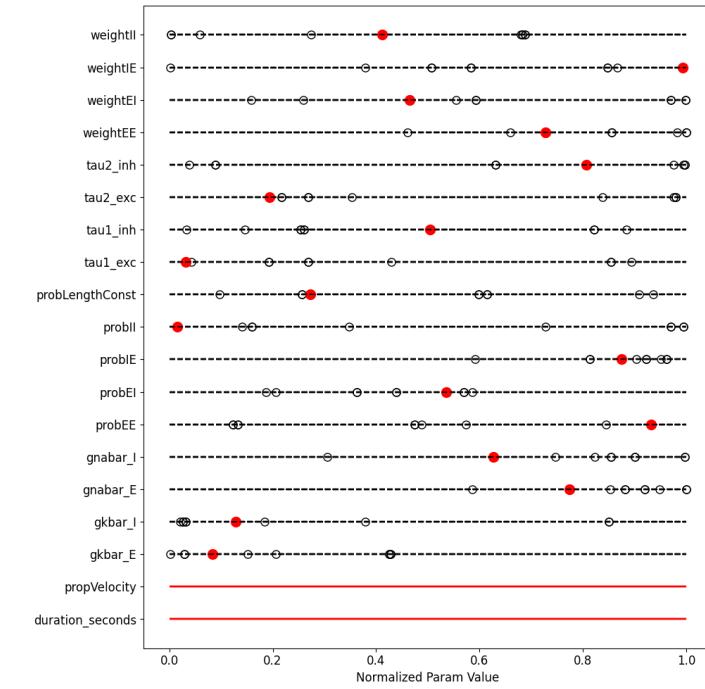
```

```

burstAmp_Fitness: {'Value': 1.933575565088278, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.4010025062656642, 'Fit': 1.5008251210871444}
IBI_fitness: {'Value': 2567.5, 'Fit': 334.6517903874919}
baseline_fitness: {'Value': 5.425694783357251, 'Fit': 1000}
slopeFitness: {'Value': -0.0008331559556403008, 'Fit': 1.0016677009804071}
thresh: {'Value': 5.621073539307177, 'Fit': 0.5373672429718314}
sustain_oscillation_fitness: {'Value': 85.84269662921349, 'Fit': 16.970230707210714}
E_rate_fitness: {'Value': 0.8849206349206349, 'Fit': 1000}
I_rate_fitness: {'Value': 18.416666666666664, 'Fit': 3.1846211486585325}
maxFitness: 1000
average_fitness: 373.0940558120445
average_scaled_fitness: 372.75699596829463

```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

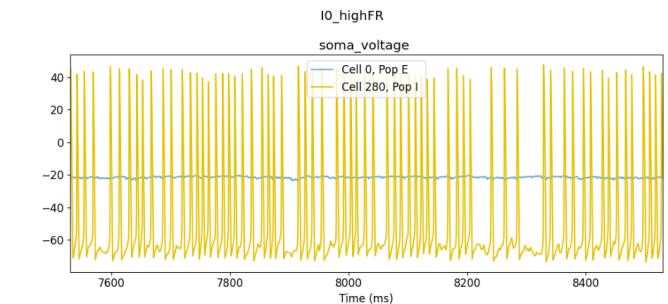
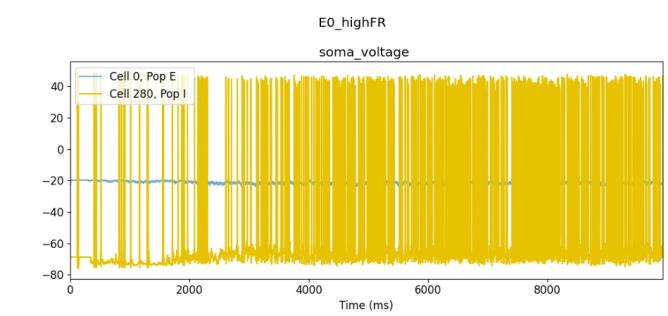
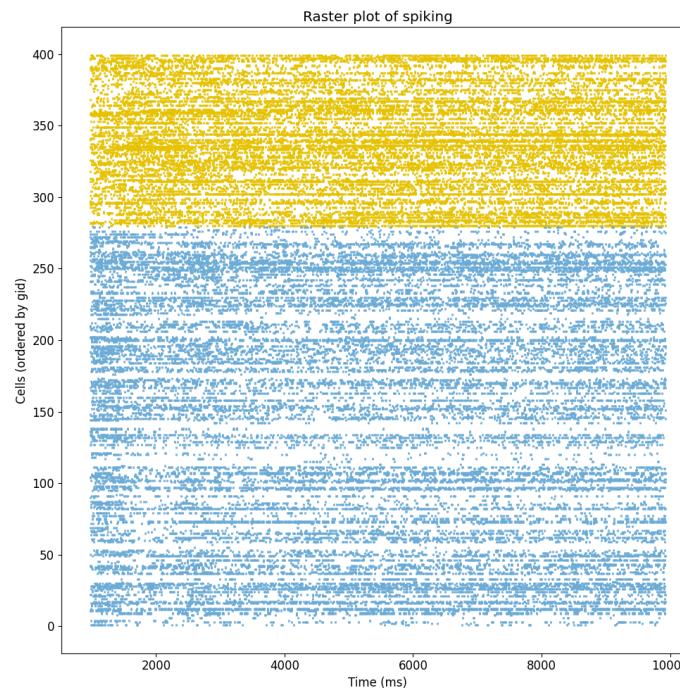
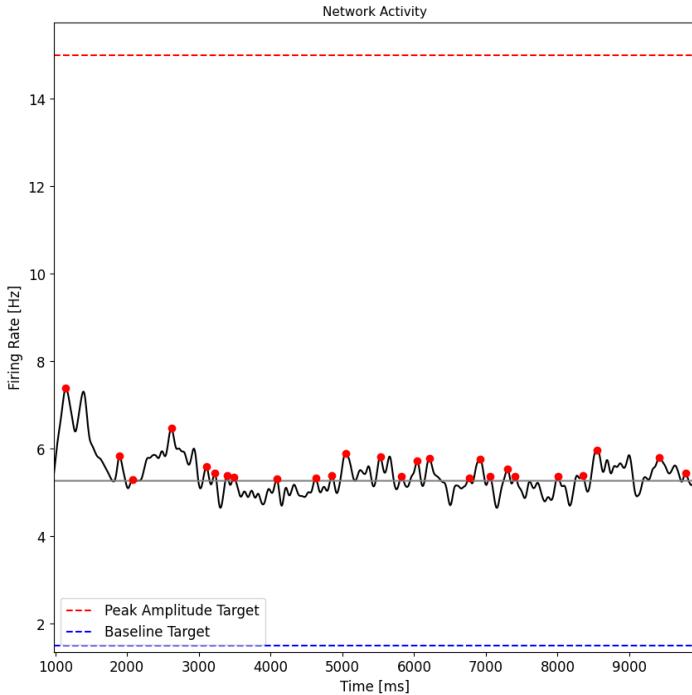
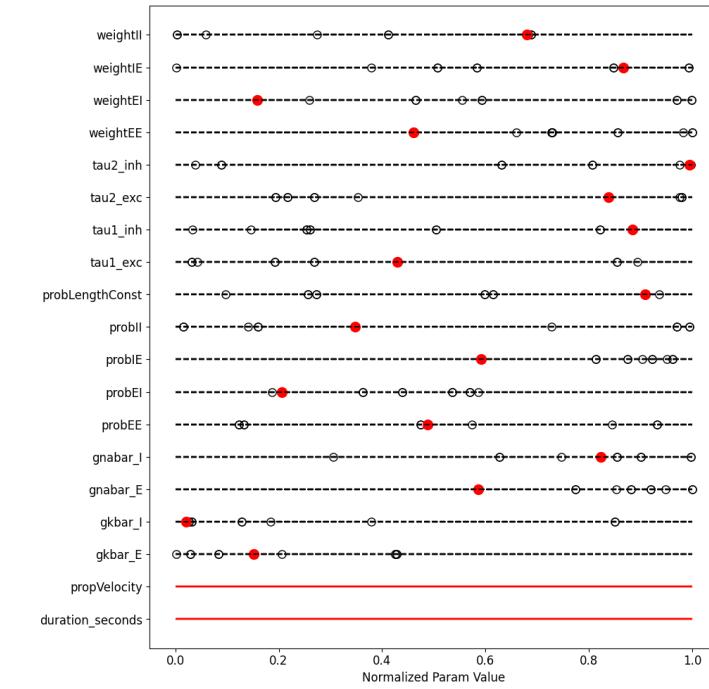
burstAmp_Fitness: {'Value': 0.3620546740049522, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 2.719033232628399, 'Fit': 1000}
IBI_fitness: {'Value': 337.5, 'Fit': 3.8068122155014814}
baseline_fitness: {'Value': 5.4216161212262755, 'Fit': 1000}
slopeFitness: {'Value': -0.0004960003047060409, 'Fit': 1.0000924928047558}
thresh: {'Value': 5.265784401301693, 'Fit': 0.7666043885936378}
sustain_oscillation_fitness: {'Value': 89.51310861423221, 'Fit': 8.144788518631392}
E_rate_fitness: {'Value': 4.777777777777778, 'Fit': 2.9709711588854004}
I_rate_fitness: {'Value': 16.98148148148148, 'Fit': 3.6760979569946612}
maxFitness: 1000
average_fitness: 335.59625185904565
average_scaled_fitness: 335.0865262720509

```

binSize: 7.5

gaussianSigma: 30.0

thresholdBurst: 1.0



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

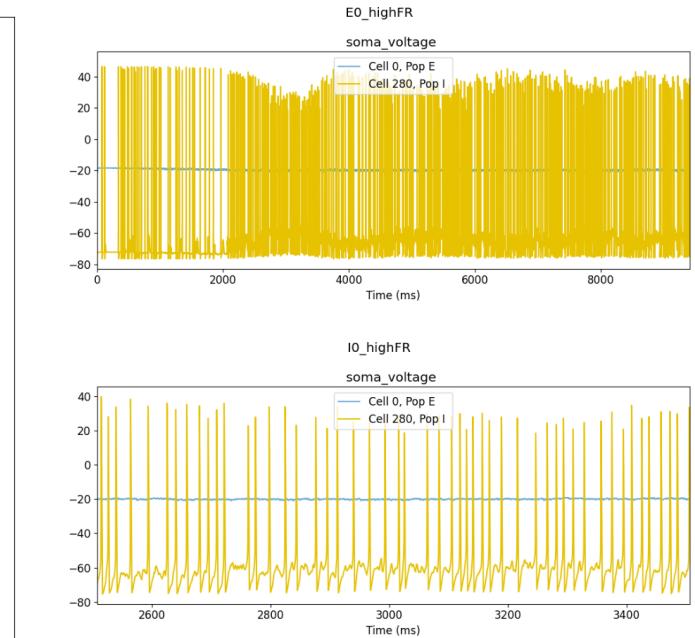
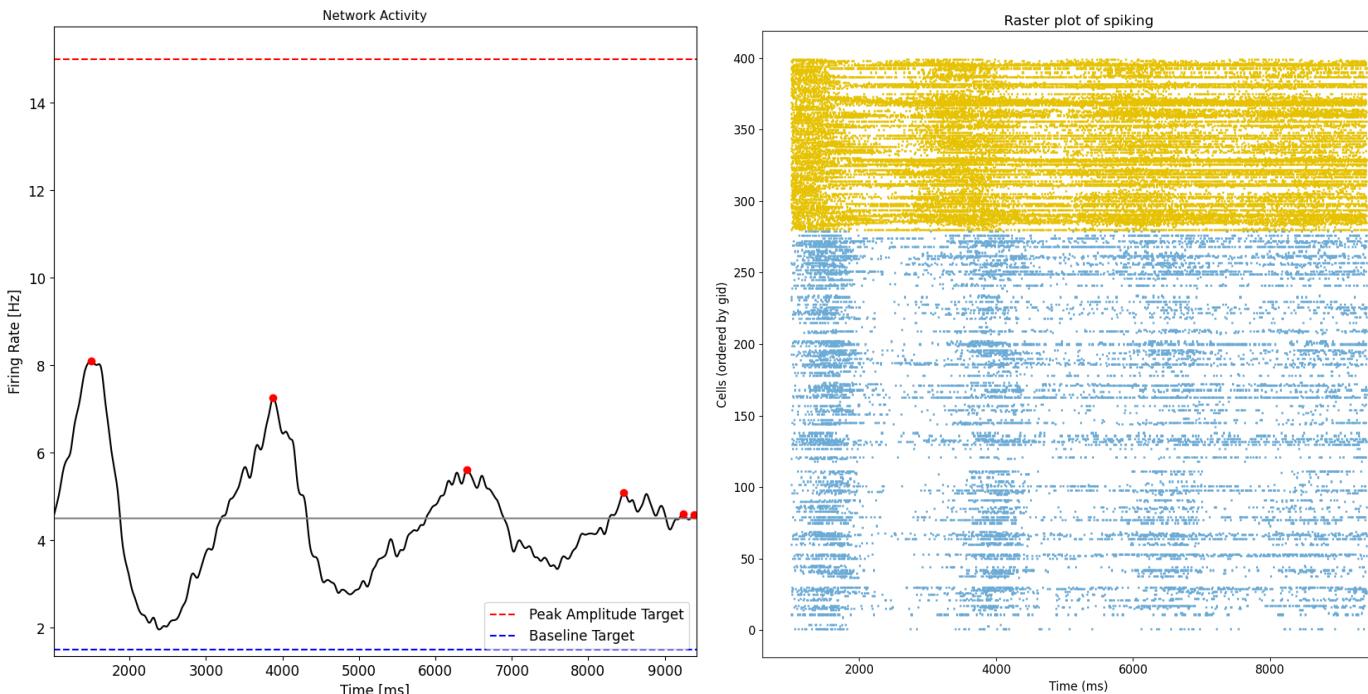
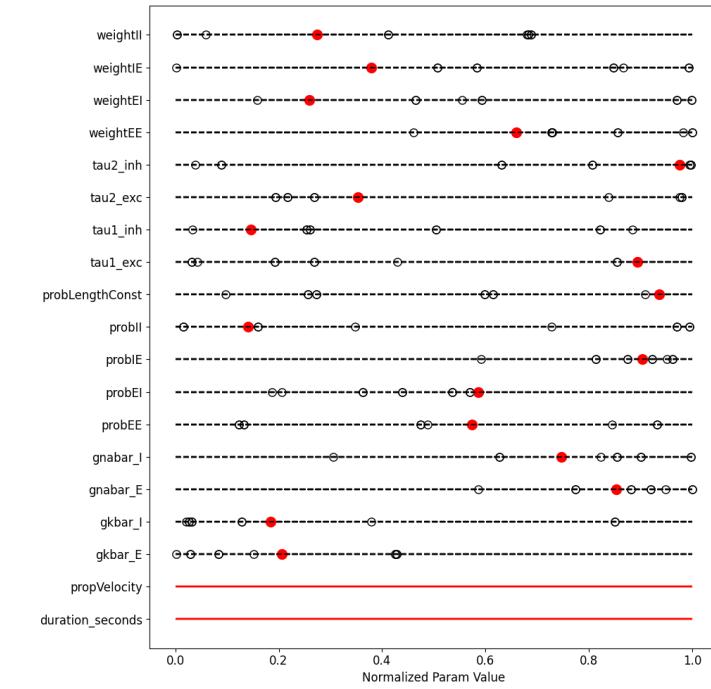
```

```

burstAmp_Fitness: {'Value': 1.3809828099927994, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.6374501992031872, 'Fit': 6.200941871176879}
IBI_fitness: {'Value': 1576.5, 'Fit': 2.2900235543957783}
baseline_fitness: {'Value': 4.440313309194301, 'Fit': 1000}
slopeFitness: {'Value': -0.0004684156692259484, 'Fit': 1.0009372703019979}
thresh: {'Value': 4.498946131616797, 'Fit': 1.650459721808464}
sustain_oscillation_fitness: {'Value': 84.04494382022472, 'Fit': 24.31300119705449}
E_rate_fitness: {'Value': 0.3611111111111111, 'Fit': 1000}
I_rate_fitness: {'Value': 27.48148148148148, 'Fit': 1.2864054445828286}
maxFitness: 1000
average_fitness: 337.41575211770225
average_scaled_fitness: 336.7518823572961

```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

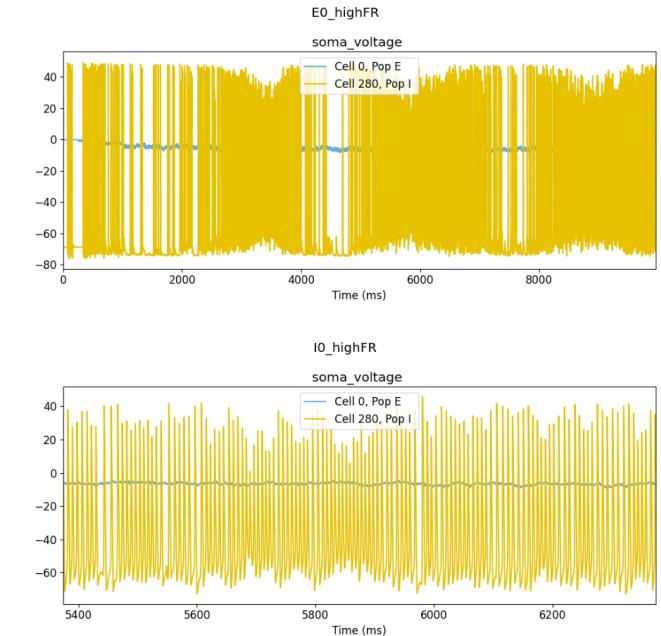
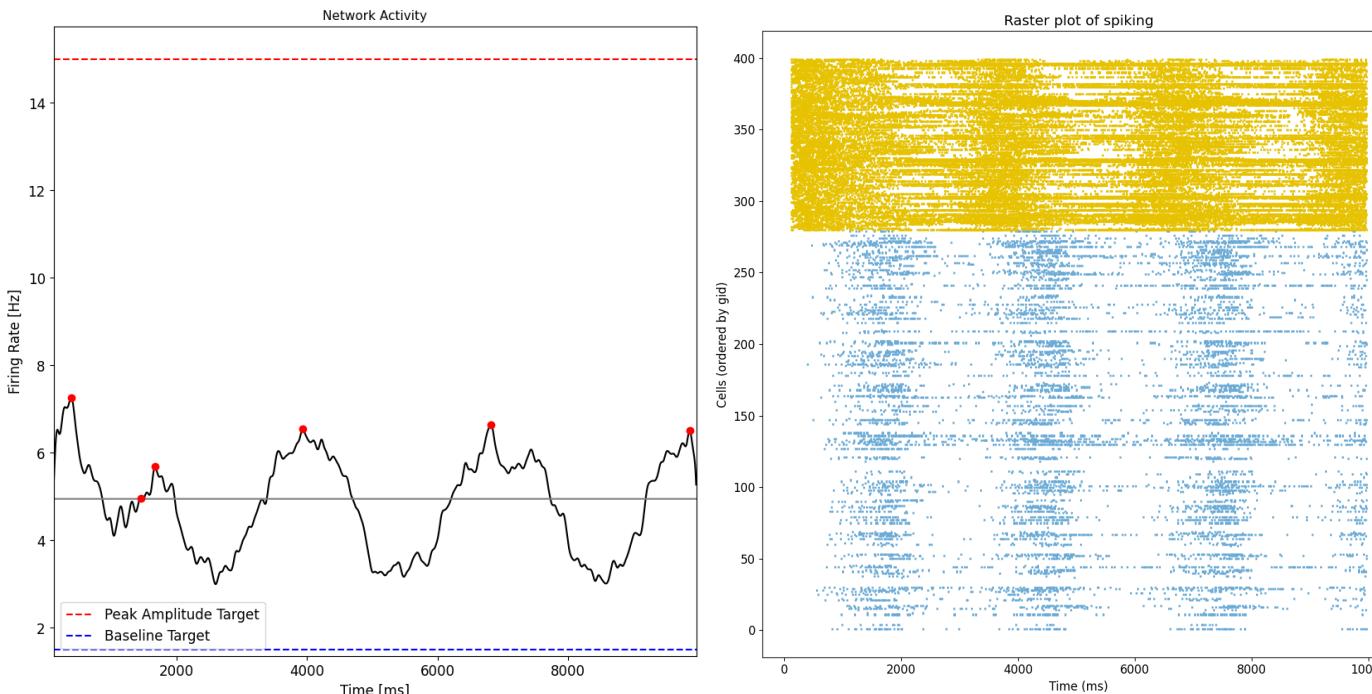
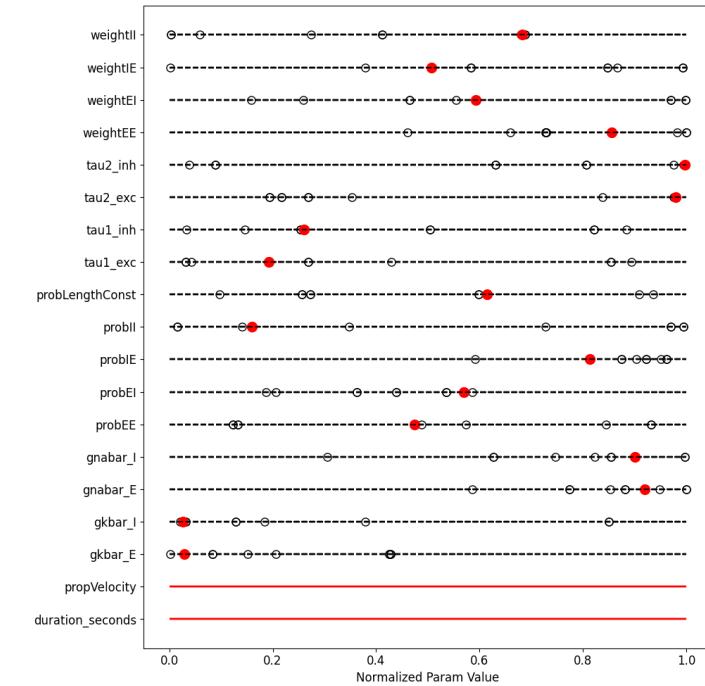
```

```

burstAmp_Fitness: {'Value': 1.3224500554685108, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.6024096385542168, 'Fit': 5.025162698969181}
IBI_fitness: {'Value': 1894.5, 'Fit': 2.0359881935251156}
baseline_fitness: {'Value': 4.836656861175548, 'Fit': 1000}
slopeFitness: {'Value': -0.00023594990893399957, 'Fit': 1.0004720111801035}
thresh: {'Value': 4.944237024263732, 'Fit': 1.0573470371301363}
sustain_oscillation_fitness: {'Value': 98.35205992509364, 'Fit': 1.390395188462777}
E_rate_fitness: {'Value': 0.5714285714285714, 'Fit': 1000}
I_rate_fitness: {'Value': 47.82407407407407, 'Fit': 5.944149196224549}
maxFitness: 1000
average_fitness: 335.16150159172133
average_scaled_fitness: 334.49568314939273

```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_osc: {'target': 100, 'width': 5, 'min': 75}

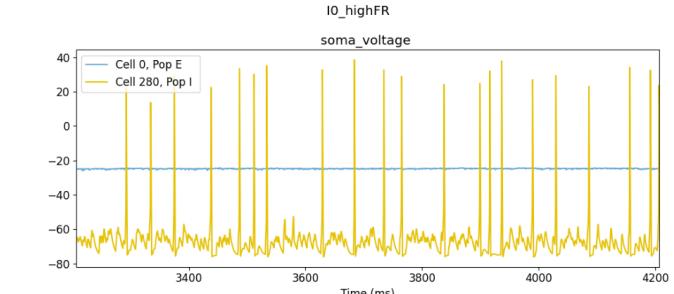
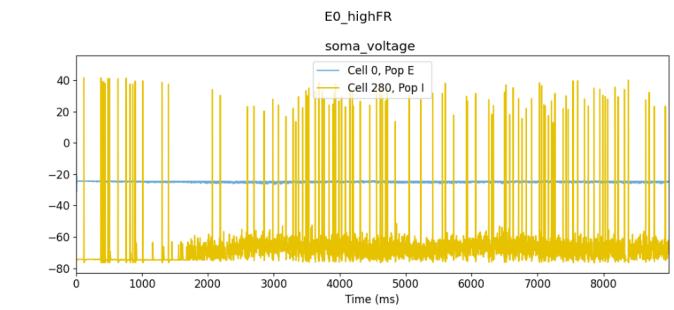
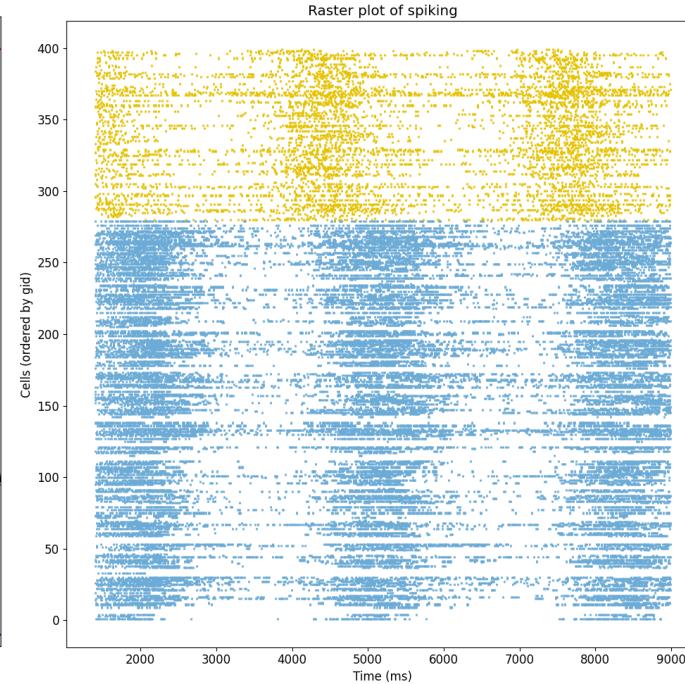
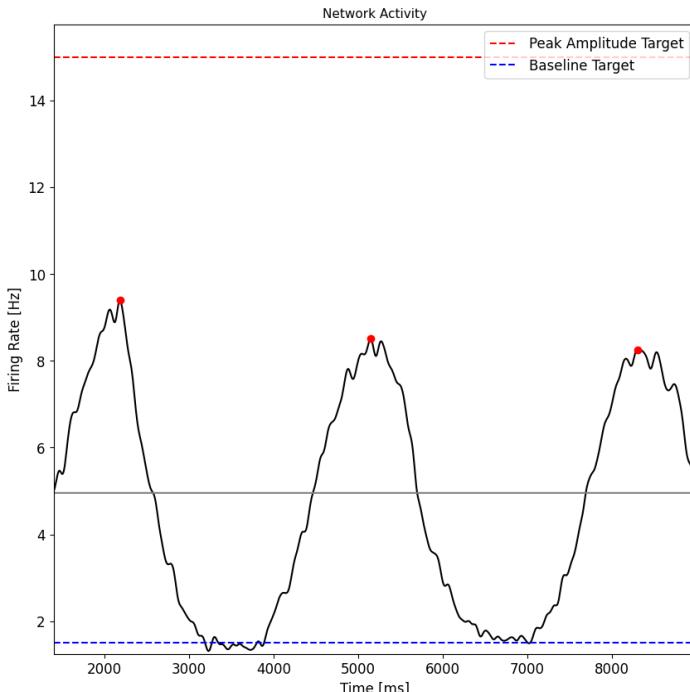
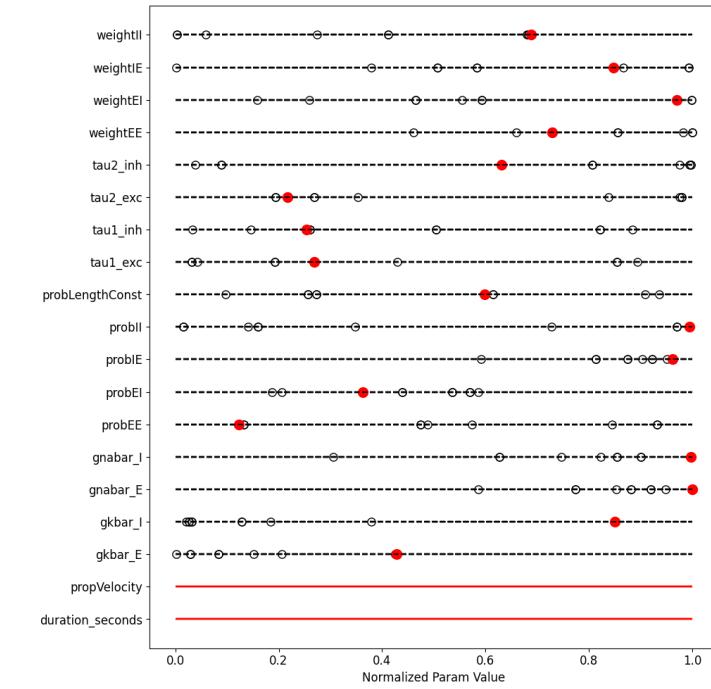
```

```

burstAmp_Fitness: {'Value': 3.761054088956605, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 0.33361134278565474, 'Fit': 1.001669448694389}
IBI_fitness: {'Value': 3056.25, 'Fit': 1.0523444194851552}
baseline_fitness: {'Value': 4.759094750927645, 'Fit': 1000}
slopeFitness: {'Value': 0.00011648951375730002, 'Fit': 1.000233006169236}
thresh: {'Value': 4.956282409366429, 'Fit': 1.0446872837510583}
sustain_oscillation_fitness: {'Value': 75.88014981273409, 'Fit': 124.45821504632488}
E_rate_fitness: {'Value': 2.4444444444444446, 'Fit': 7.555095393791001}
I_rate_fitness: {'Value': 15.435185185185185, 'Fit': 4.290835552601959}
maxFitness: 1000
average_fitness: 237.82256446120195
average_scaled_fitness: 237.05944613748366

```

binSize: 7.5  
gaussianSigma: 30.0  
thresholdBurst: 1.0



```

rate_targets: {'E': {'target': 7.5, 'width': 2.5, 'min': 1}, 'I': {'target': 30, 'width': 10, 'min': 2}}
bursts_peak_targets: {'target': 15, 'width': 2, 'min': 8}
IBI_targets: {'target': 3000, 'width': 2000, 'max': 4000}
baseline_targets: {'target': 1.5, 'width': 1, 'max': 3}
rate_slope: {'target': 0, 'width': 0.5, 'max': 0.5}
thresh_target: {'target': 5, 'width': 1, 'min': 3, 'max': 7}
burst_peak_frequency: {'target': 0.3333333333333333, 'width': 0.1666666666666666, 'min': 0.25}
sustained_oscil: {'target': 100, 'width': 5, 'min': 75}

```

```

burstAmp_Fitness: {'Value': 0.31985713624859125, 'Fit': 1000.0}
burst_peak_frequency_fitness: {'Value': 3.2470826991374935, 'Fit': 1000}
IBI_fitness: {'Value': 305.0, 'Fit': 3.870013369620602}
baseline_fitness: {'Value': 6.69193739562785, 'Fit': 1000}
slopeFitness: {'Value': -3.996106867422769e-05, 'Fit': 1.0000799253312076}
thresh: {'Value': 6.609985161087215, 'Fit': 0.1998905802120237}
sustain_oscillation_fitness: {'Value': 94.46107784431138, 'Fit': 3.0276430064092956}
E_rate_fitness: {'Value': 19.46825396825397, 'Fit': 119.97718351175384}
I_rate_fitness: {'Value': 8.916666666666666, 'Fit': 8.234505665347891}
maxFitness: 1000
average_fitness: 348.47881289540834
average_scaled_fitness: 348.3485539097534

```

binSize: 7.5

gaussianSigma: 30.0

thresholdBurst: 1.0

