

表 1 ニューロン数

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
ニューロンの数			
線条体 (MSN)	10576×5000	1203062 ± 21384	[1]
線条体 (MSN:D1)		601531 ± 10692	[1][2]
線条体 (MSN:D2)		601531 ± 10692	[1][2]
線条体 (FSI)	212×5000	16463 ± 292	[1][2]
視床下核	32×5000	22522 ± 1339	[1]
淡蒼球外節	100×5000	34301 ± 1339	[1]
淡蒼球内節/黒質網様部	56×5000	13486 ± 271	[1][3]
黒質緻密部		12283 ± 538	[1]

表 2 発火率

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
発火率			
線条体 (MSN)		$1.17 \pm 0.08 \text{ Hz}$	[4]
線条体 (MSN:D1)		±	[1][2]
線条体 (MSN:D2)		±	[1][2]
線条体 (FSI)		$11.0 \pm 2.08 \text{ Hz}$	[4]
視床下核		$7.39 \pm 0.53 \text{ Hz}$	[5]
淡蒼球外節		$52.3 \pm 26.6 \text{ Hz}$	[6]
淡蒼球内節/黒質網様部		$47.7 \pm 16.8 \text{ Hz}$	[6]
黒質緻密部		$2.64 \pm 0.25 \text{ Hz}$	[7]
大脳皮質 (PTN)	15Hz	5.66Hz	
大脳皮質介在ニューロン (PTI)		図 1 参照	[8]
視床 (Th)		図 2 参照	[9]

表 3 入力が発火率

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
発火率			
視床下部	4Hz		

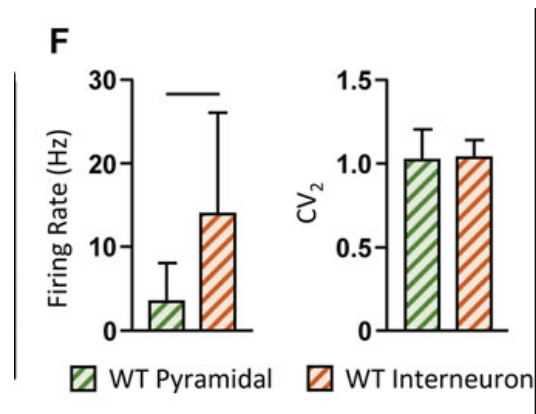


図1 motor cortex interneuron 発火率

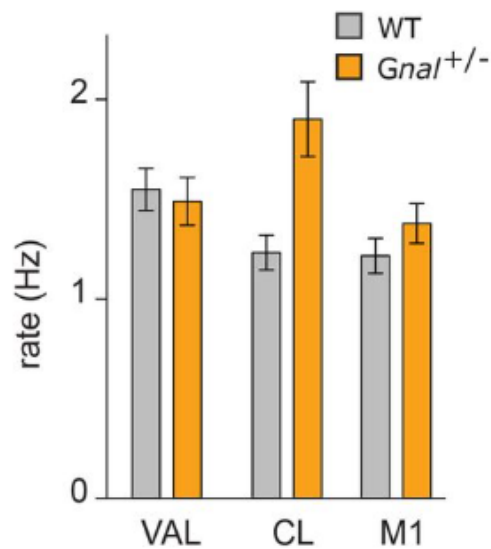


図2 thalamus 発火率

表4 安静時の膜電位

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
安静時の膜電位			
線条体 (MSN)	0mV	-81.0±1.7mV	[10]
線条体 (MSN:D1)		-82.1±1.4mV	[11]
線条体 (MSN:D2)		-82.2±1.2mV	[11]
線条体 (FSI)	0mV	-68.22±1.38mV	[12]
視床下核	0mV	-56.2±1.3mV	[13]
淡蒼球外節	0mV	-56.13±1.4mV	[14]
淡蒼球内節/黒質網様部	0mV	-67.1±0.1mV	[15]
黒質緻密部		-49.2±0.9mV	[16]
大脳皮質 (PTN)	2	-64.7±1.2mV	[17]
大脳皮質介在ニューロン (PTI)		-69.2±1.64mV	[18]
視床		-56.7±1.4mV	[19]

表 5 発火閾値

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
発火閾値			
線条体 (MSN)	30mV	-43.9±6.1mV	[10]
線条体 (MSN:D1)		-48.4 ±1.5mV	[11]
線条体 (MSN:D2)		-53.0 ±1.3mV	[11]
線条体 (FSI)	19.6mV	-42.71±1.59mV	[12]
視床下核	26mV	-34.6±2.5mV	[20]
淡蒼球外節	10mV	-32.8 ± 4.2mV	[21]
淡蒼球内節/黒質網様部	6mV	-38.80±0.95mV	[22]
黒質緻密部		-42.90 ± 5.80mV	[23]
大脳皮質 (PTN)		-48.8±1.0mV	[24]
大脳皮質介在ニューロン (PTI)		-39.2±2.03mV	[18]
視床		-37.8±1.6mV	[25]

表 6 時定数

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
時定数			
線条体 (MSN)	13ms	15.6±3.2ms	[10]
線条体 (MSN:D1)		7±0.8ms	[26]
線条体 (MSN:D2)		9±1.1ms	[26]
線条体 (FSI)	16ms	3.08±0.85ms	[12]
視床下核	26ms	16±2ms	[27]
淡蒼球外節	14ms	13.6±6.6ms	[21]
淡蒼球内節/黒質網様部	14ms	52±18ms	[28]
黒質緻密部		80.6±28.6ms	[29]
大脳皮質 (PTN)		23.6±1.4ms	[24]
大脳皮質介在ニューロン (PTI)		5.43±0.96ms	[18]
視床		20.7±2.97ms	[30]

表 7 投射確率

パラメータ	値 (サル)	値 (マウス)	ref(マウス)
投射確率			
線条体 (MSN) → 線条体 (MSN)	100%		
線条体 (MSN:D1) → 線条体 (MSN:D1)	100%	7%	[31]
線条体 (MSN:D1) → 線条体 (MSN:D2)	100%	4.5%	[31]
線条体 (MSN:D2) → 線条体 (MSN:D1)	100%	13%	[31]
線条体 (MSN:D2) → 線条体 (MSN:D2)	100%	23%	[31]
線条体 (MSN:D1) → 淡蒼球外節 (GPe)	100%	70.36%	[32]
線条体 (MSN:D2) → 淡蒼球外節 (GPe)	100%	70.36%	[32]
線条体 (MSN:D1) → 淡蒼球内節 (GPi)	82%	26.4 %	[32]
線条体 (MSN:D1) → 黒質緻密部 (SNc)		0.67%	[32]
線条体 (FSI) → 線条体 (MSN:D1)		53%	[33]
線条体 (FSI) → 線条体 (MSN:D2)		36%	[33]
線条体 (FSI) → 線条体 (MSN)	100%	58%	[33]
線条体 (FSI) → 線条体 (FSI)	100%	58%	[33]
視床下核 (STN) → 線条体 (MSN,FSI)	17%	6.83%	[32]
視床下核 (STN) → 淡蒼球外節 (GPe)	83%	3.79%	[32]
視床下核 (STN) → 淡蒼球内節/黒質網様部 (GPi/SNr)	72%	57.66	[32]
淡蒼球外節 (GPe) → 線条体 (MSN,FSI)	16%	62.11%	[32]
淡蒼球外節 (GPe) → 視床下核 (STN)	100%	1.45%	[32]
淡蒼球外節 (GPe) → 淡蒼球外節 (GPe)	84%		
淡蒼球外節 (GPe) → 淡蒼球内節/黒質網様部 (GPi/SNr)	84%	36.14%	[32]
黒質緻密部 (SNc) → 線条体 (MSN)		1.15%	[32]

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