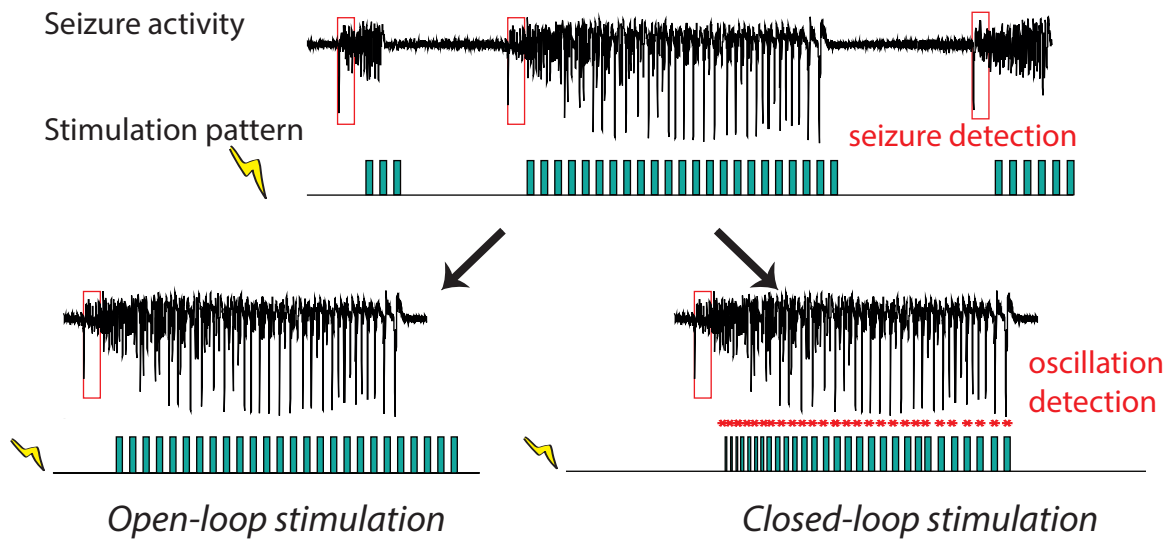


B Responsive “on-demand” stimulation



C

Evoked seizures (Takeuchi et al)		<i>Ictal</i>	<i>Pre-Ictal</i>
Electrical stimulation		Duration	Induction threshold
	⌚	↑	↓
	⌚	↓	-
Optogenetic stimulation			
All MS neurons	⌚	no effect	-
	⌚	↓	-
Cholinergic neurons	⌚	no effect	↑
	⌚	no effect	-
GABAergic neurons	⌚	no effect	↓
	⌚	↓	-
Glutamatergic neurons	⌚	no effect	no effect
	⌚	no effect	-
Spontaneous seizures (Hristova et al)			
Optogenetic stimulation			
GABAergic neurons	⌚	↓	-
	⌚	-	-

⌚ Open-loop ⌚ Closed-loop ● Pro-epileptic ● Anti-epileptic