

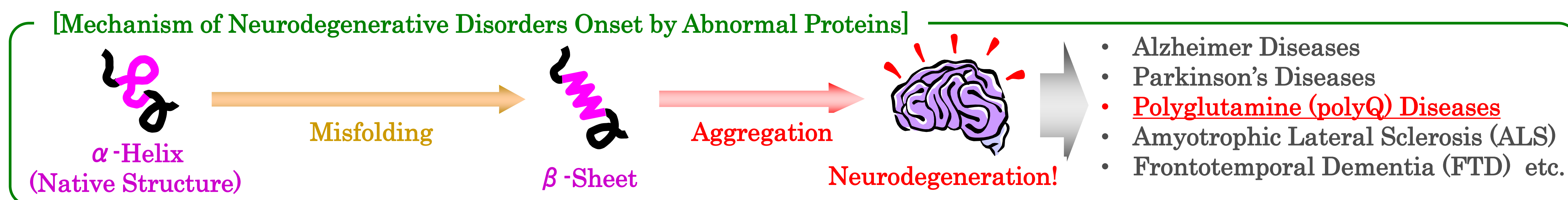
L-Arginine

~ A Therapeutic Agent for PolyQ Diseases ~

KEY INVENTION

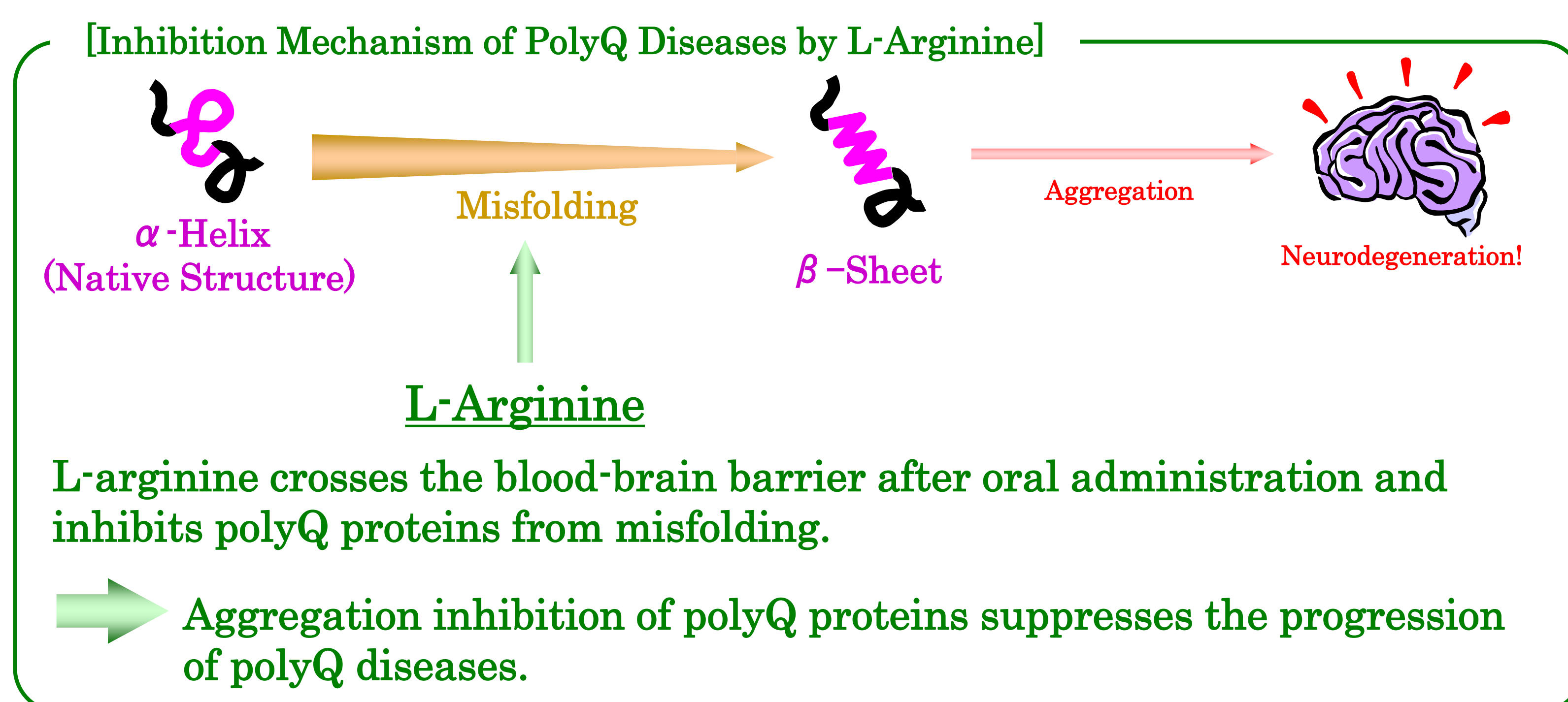
L-arginine inhibits the aggregation of the polyglutamine (polyQ) proteins which are responsible for polyQ diseases.

➔ Medical Doctor-led Clinical Trials of L-arginine are ongoing as a feasibility study for polyQ diseases.

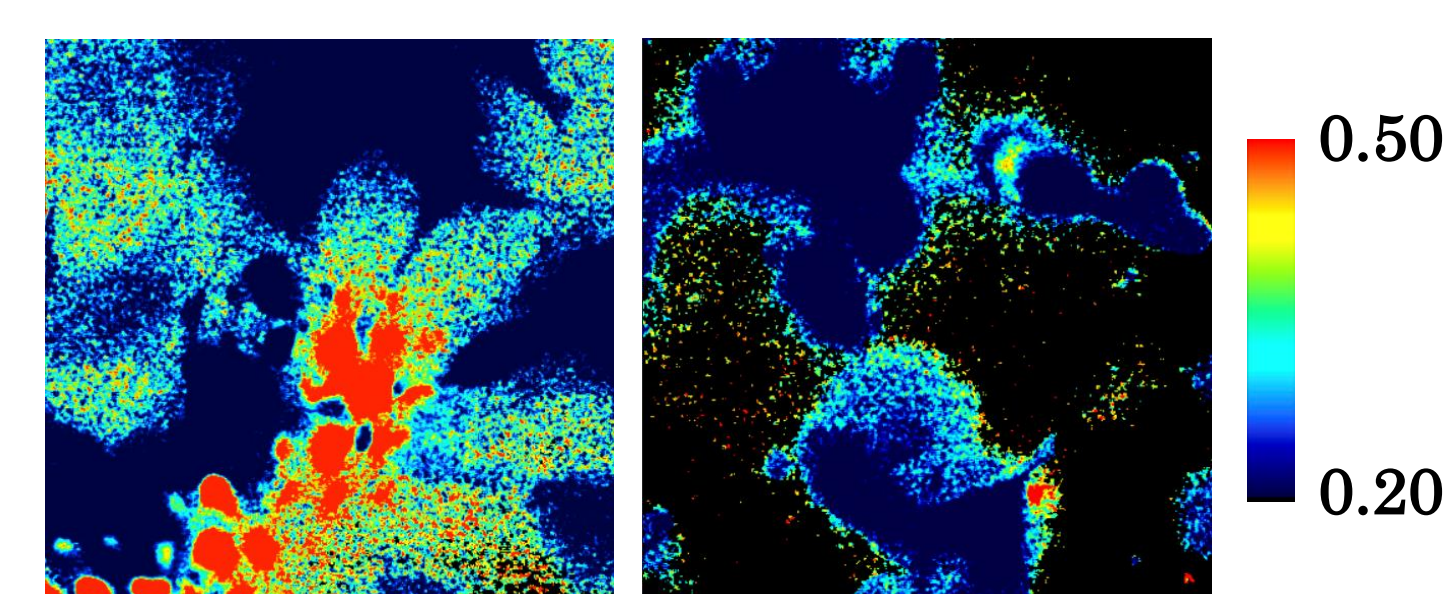


SUMMARY of INVENTION

L-arginine inhibits the polyQ proteins from misfolding and aggregation.



Inhibitory Effect of PolyQ Protein Aggregation by L-Arginine



Addition of L-arginine decreased protein aggregation.

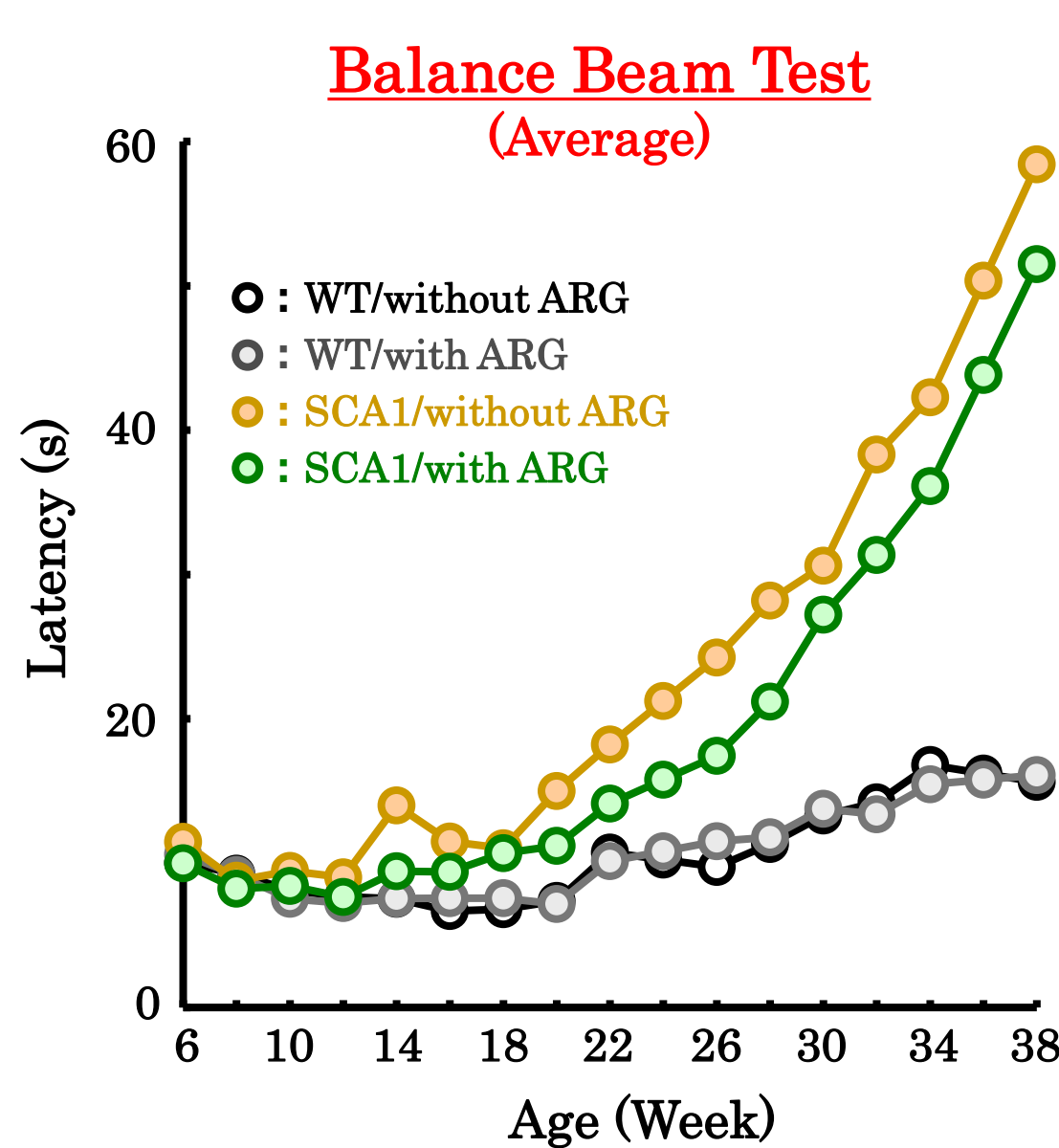
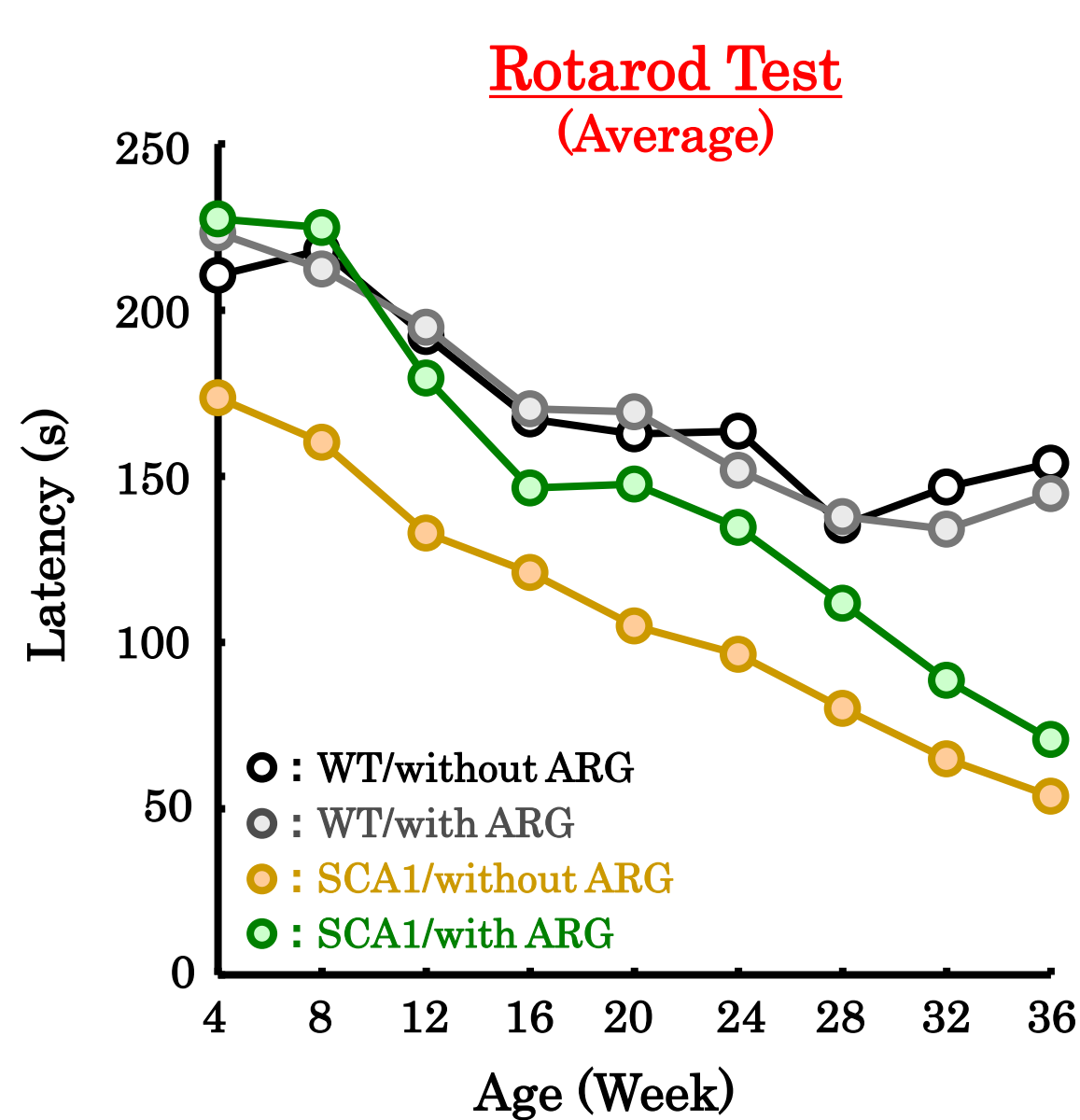
Brain 2020, 143, 1811-1825

EFFECT of INVENTION

Effects on PolyQ Disease Mouse Models

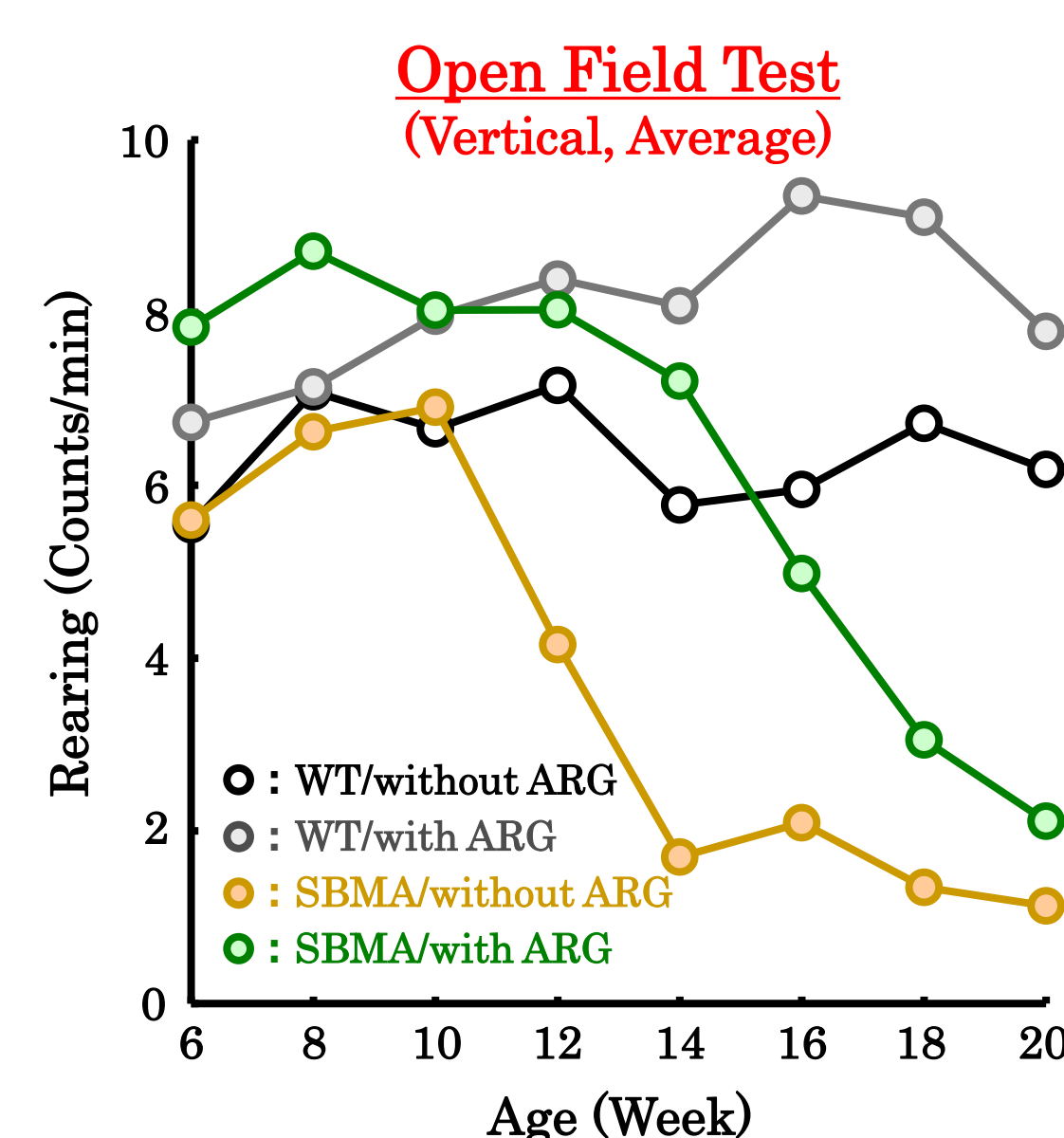
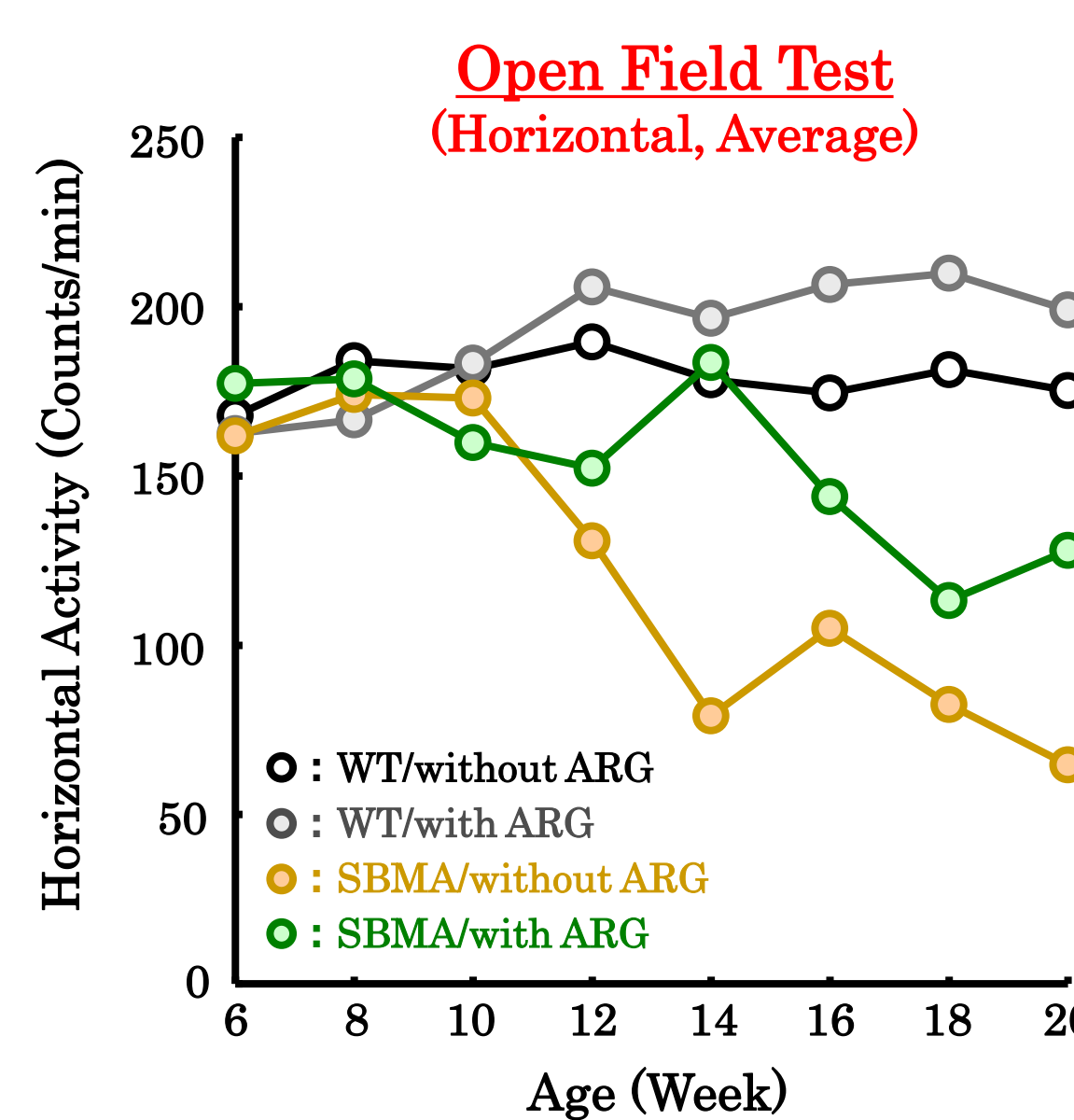
- Spinocerebellar Ataxia Type 1 (SCA1): A slowly progressive cerebellar ataxia [Symptoms] Gait disturbance, Dysarthria, etc.
- Spinal & Bulbar Muscular Atrophy (SBMA): A neurological disorder in which motor neurons gradually decrease [Symptoms] Muscle Weakness and Atrophy, etc.

[Effects on SCA1 Mice]



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[Effects on SBMA Mice]



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Motor dysfunction of SCA1/SBMA mice was suppressed by L-arginine administration.

APPLICATION expected

- © Application as a novel therapeutic agent (progression inhibitor) for polyQ diseases
- © Application as a therapeutic agent (progression inhibitor) for other neurodegeneration disorders

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Licensable Patent
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