

Self-management of health based on the action mechanism of daily behaviors such as food, exercise and sleep

Building Exercise Gauge as a Novel Measure of Exercise toward Realization of Healthy Longevity

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Summary :

The objectives of the proposed research project are to gain in-depth insight into the nature and mechanisms of exercise-mediated systemic energy metabolism and healthy longevity; to develop “Exercise Gauge”, the world’s unprecedented, novel measure of exercise; and to foster a society of ultimate healthy longevity in which exercise is being used as a primary measure to “nip disease in the bud”.

The proposed research project is planned to promote research with a focus on the following three pillars:

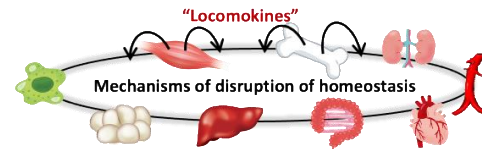
- (1) To identify exercise locomokines and elucidate the mechanisms through which exercise promotes healthy longevity;
- (2) To develop a novel, textile-type, wearable device to monitor all manner of daily activities in humans and launch a life-logging system;
- (3) To establish “Exercise Gauge” as a novel measure of exercise contributing to the optimal self-management of daily activities.

Building “Exercise Gauge” as a Novel Measure of Exercise toward Realization of Healthy Longevity

Overall vision of the proposed R/D project

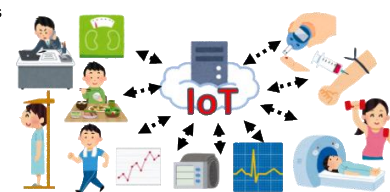
Elucidation of the mechanisms of healthy longevity

- To identify, and establish a measuring system for, “locomokines” (i.e., locomokines secreted from the locomotor organs, such as muscle and bones)



Creation of a life-logging system

- To create life logs (record daily life activities)



Development of “Exercise Gauge”

- To establish an accessible measure of exercise



Future prospects/spin-off effects



Making “Exercise Gauge” available for use at relevant nearby facilities



Making exercise visible



Providing gamification nudges



Motivating people to exercise



Making exercise therapy a success



Reducing medical costs



Fostering a society of healthy longevity

“Exercise Gauge” is intended to help self-manage daily activities and maintain health thus contributing to fostering a society of ultimate healthy longevity in which exercise is being used as a primary measure to “nip disease in the bud”.