Subcommittee on Tea and Frailty Research

- Leadership Organization : Kyoeiseicha Co., Ltd
- Representative : Yasuhiro Morishita -Representative Director / CEO
- Leader : koji Tategai –Director / Director of Laboratory and Quality Assurance

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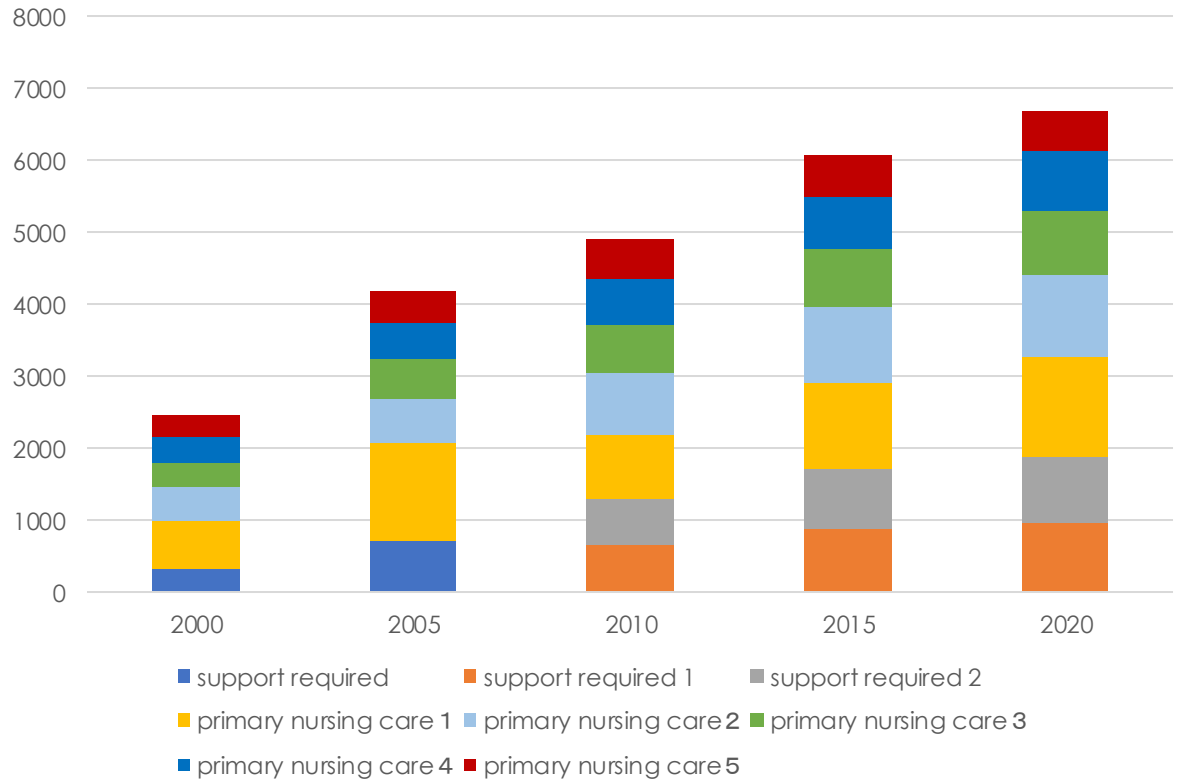
Challenges in the 100th Age of Life ～How to Deal with Frailty～

- **Frailty is a high risk of transitioning to a state of long-term care.**
- **Early identification of signs of frailty and moderate exercise and diet can help you regain or maintain good health and live life in good health and enjoyment.**

- Japan has become a hyper-aged society where the elderly account for about 30% of the population, and healthy life expectancy will be 9 to 12 years shorter than the average life expectancy as of 2020.
- Left untreated, frailty can interfere with daily life and increase the risk of requiring long-term care. The number of people certified as requiring nursing care or support under the long-term care insurance system will total 6.69 million in FY2020. This represents a 2.7-fold increase from the 2.47 million in FY2000.
- Studies have shown that people who consume tea on a daily basis have significantly fewer frail t y individuals. The protective effects of tea against various diseases and its ability to promote social participation are now attracting attention.

(Unit; 10,000 persons)



(Source: White Paper on Aging 2023, Cabinet Office, Government of Japan)

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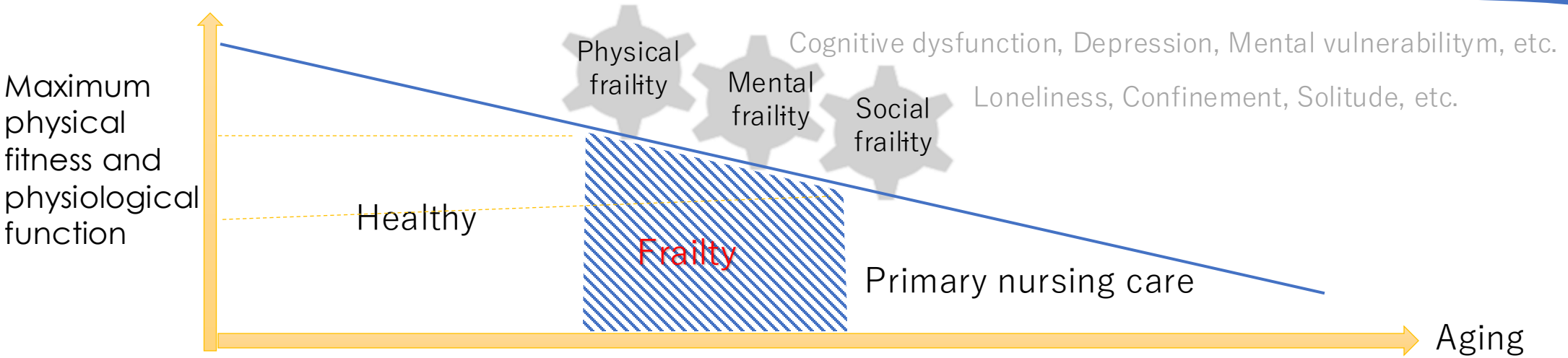
Theme, Outline of Initiatives, and Policies

Theme	Creating Health Care & Food Technology Innovations with Tea
Outline of initiatives	It is known that the catechins contained in tea are polymerized into theaflavins and thearubidins, which are a types of polymerized polyphenol. Recent studies have revealed that these polyphenols have various health effects such as antioxidant, anticancer, antibacterial, and antiviral effects. On the other hand, most of the polymerized polyphenols contained in tea have not yet been clarified due to their complex molecular structures, and further research is required to elucidate their functions. Tea exports have increased dramatically amid the global Japanese food boom, and its functionality is attracting attention from overseas as well. Under open innovation, we will promote research community activities that aim to realize wellbeing through contributions to prevent and reduce the level of frailty, an important issue in the age of 100 years of life, using tea as a research material.
Policies	Under the open innovation, through free and open-minded meetings, we will organize R&D teams integrating various different fields of agri and food-tech, and promote acquisition of external funding, etc., industry-academia joint research, proof of concept, and commercialization.

Goals of the Subcommittee



We will promote industry-academia co-creation R&D focusing on tea's 1) nutritional functions (nutrition necessary for life, such as health maintenance and growth and development), 2) taste and social functions (satisfying human desires for taste, aroma, and relationships), and 3) physiologically active functions (regulating body functions such as immunity, circulatory system, and nervous system). Contribute to the extension of healthy life expectancy through prevention and reduction the level of frailty

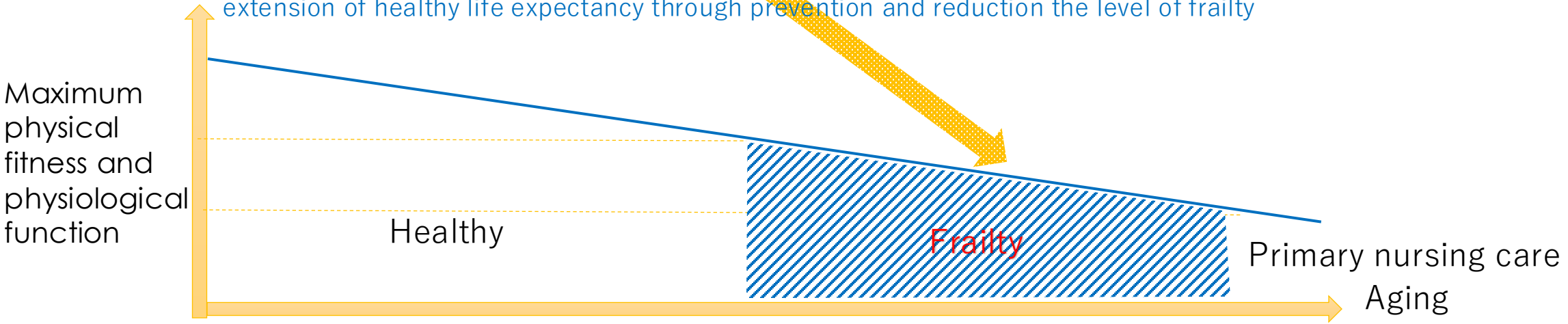
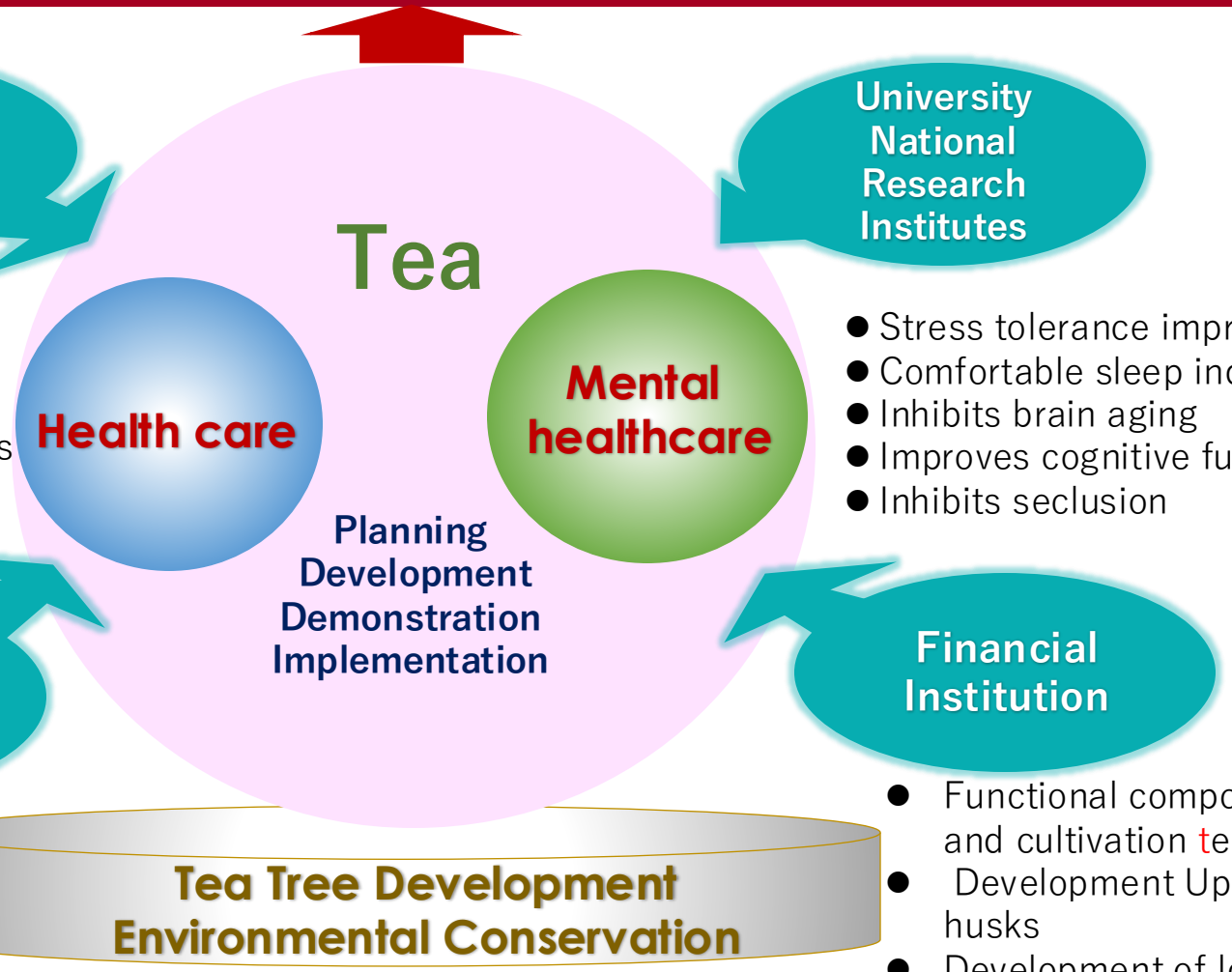


Image of the Subcommittee's Activities

Achieve wellbeing for each individual through prevention and improvement of frailty
～ Innovation of "tea" to live happily in the age of 100 years of life ～



- Improved intestinal environment
- Pneumococcal bactericidal action
- Maintenance and enhancement of muscle strength
- Reduction of glucose metabolism disorders
- Reduction of skin problems

- Stress tolerance improvement
- Comfortable sleep induction
- Inhibits brain aging
- Improves cognitive function
- Inhibits seclusion

- Functional component enhanced tea-tree and cultivation technology
- Development Upcycling technology for tea husks
- Development of low-nitrogen fertilizer application technology

Five-Year Action Plan

- The subcommittee will promote R&D projects with Kyoei s eicha Co., Ltd. as the lead organization and Kyoto Prefectural University as a joint organization. While also collaborating with the “Keihanna Science City Food Technology Co-Creation Platform,” the subcommittee will utilize the strength of open innovation and expand the number of collaborating members as needed.
- Focusing on the superior functionality of “tea” the R&D project will promote collaboration with institutions in the medical and brain science fields during the research phase, and with companies and other partners in the business-to-business phase during the commercialization study phase.
- In promoting research and development, we aim to make this a public project by obtaining competitive research funds.

Activity Agenda	2025	2026	2027	2028	2029
Project Theme Search	(Information exchange, Ideation meeting)				
Networking	(Determination of R&D themes, acquisition of external funding)				
Research & Development	(Collaborative Research & Development)				
Proof of Concept			(Proof of concept, Exit Strategy Planning, etc.)		