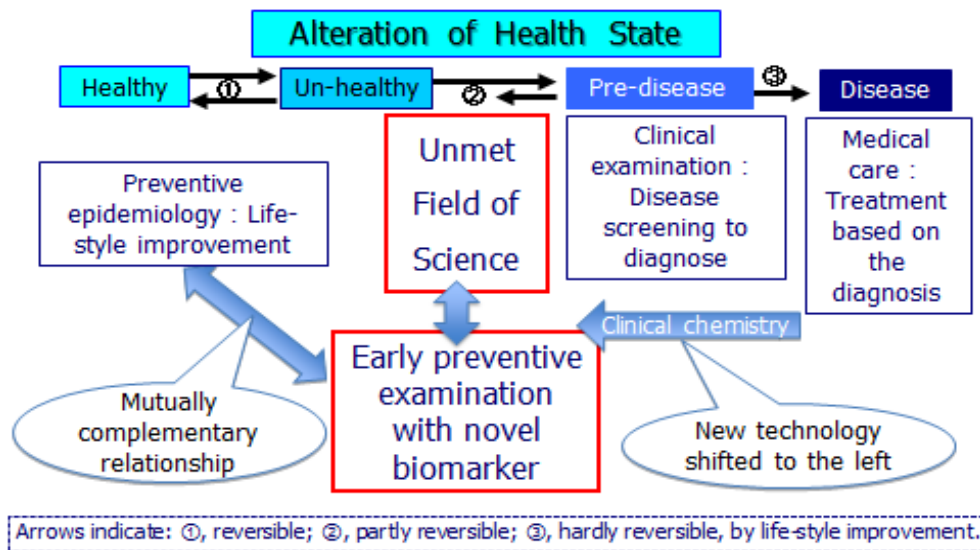


Introduction and Message of "Resource Center for Health Science (RECHS)" Non-Profit Inc.

1. Abstract

As of Feb. 22, 2010, Resource Center for Health Science (RECHS) has initiated the project based on development and utilization of Bio-Resource/Database (BR/DB), comprising personal health record (PHR), such as health/medical records from the healthy state of individuals, physically consolidated with bio-resources, e.g. serum, urine etc. taken from the same individuals. This is characterized as analytical alterations of BR/DB annually collected from healthy individuals, targeting the number of 100,000, but not as the data dependent on the number of unhealthy/disease state individuals so far investigated.

Fig. 1. RECHS Mission: "Back to the Future" Project Capable of Realizing Prospective Case-Control Study Targeting Un-Met Field of Science



The purpose is to establish the primary defense for the improvement of QOL (quality of life) by applying BR/DB on analysis by epidemiology and clinical chemistry (Un-met field of science shown in Fig. 1). Furthermore, it is also to contribute in the construction of the PHR system planned in the national project. The RECHS coordinating activities are fully dependent on general hospitals as many as possible on the basis of regional medical services, and academia group capable of analyzing BR/DB.

2. Development and Utilization of Bio-Resource/Database (BR/DB)

■ Aim

- 1) Generation of BR/DB by integrating two projects performed by Prof. Saito, clinical chemist (project-1), and Prof. Sasaki, epidemiologist (project-2), under the partnership of designated health examination/screening institutes.
- 2) Utilization of BR/DB in the field of health science research/development capable of improving public health.

Project-1: Prospectively accumulated database (DB) consisting of blood serum and urine samples (bio-resources) excluding genome information, referred to as BR/DB-bank, which is consolidated with medical/clinical data (performed by Prof. Saito, Human Health Sciences, Kyoto Univ.).

Prospective results: Addition of dietary lifestyle information will strengthen the data.

Project-2: Validation and assessment of dietary records using BDHQ, internationally standardized self-administered dietary history questionnaire (performed by Prof. Sasaki, Social and Preventive Epidemiology, Univ. of Tokyo).

Prospective results: Addition of serum-based validation will strengthen the data.

This activity follows in the Health Promotion Act (Law number: Act No. 103 of 2002). The Law aims to provide a basic framework for overall promotion of public health improvement, because the importance of improving public health increases remarkably in the progress of population aging and the changing of disease structure. The Law also attempts to improve public health through better nourishment of people and other public health measures. Main objectives are, 1) To lengthen healthy life expectancy of the nation and to improve the standard of living, 2) To reduce health care cost, so that people can live a life without being bed-ridden or having lifestyle-related diseases.

■ Benefit/Advantage of BR/DB

- 1) Consolidated bio-resources with clinical/dietary data collected from healthy subjects once a year at health examination/screening institutes. BR aliquots are stored at -80°C as BR/DB-bank. This process will continue for min. 5 years.
- 2) Applicable for prospective cohort study and also for searching novel unhealthy-state (preemptive) biomarkers using BR/DB capable of ascending to the past ("Back to

the Future” Project), which is useful for R/D for preventive medicine including food supplements.

- 3) To be able to provide a choice of recovery from unhealthy/disease state: medication vs. life/dietary style change (BR/DB should be anonymized in a linkable fashion).

3. RECHS Meeting

■ Purpose

To support and propagate RECHS activities/mission under the concept that health science is dependent on both of human and food resources.

■ Action

- 1) Presentation of the results of BR/DB application through periodical/irregular conferences and/or the website (www.rechs.org) for information exchange.
- 2) Organization of scientific conference and training/education courses for “Health Science-Resource Advisor.”
- 3) Health Science-Resource Advisor’s role is to guide how to achieve personalized healthy life based on the results of individual clinical and dietary studies.

4. Board Members

- MATUO Yushi, Ph.D., DMSc., [Senior Director] (Invited Prof., Osaka Univ., and Fellowship Researcher, Kyoto Univ.)
- SAITOU Kuniaki, Ph.D., [Director] (Prof., Human Health Science, School of Medicine, Kyoto Univ.)
- MATSUNAMI Hidetoshi, M.D., Ph.D., [Director] (President of Matsunami General Hospital, Sosei-kouseikai Clinical Foundation)
- NOBORI Tsutomu, M.D., Ph.D., [Director] (Dean/Prof., School of Medicine, Mie Univ.)
- TAKEMURA Masao, Ph.D., [Auditor] (Chief Clinical Chemist, Gifu Univ. Hospital)

5. Contact

- Web site to RECHS: <http://www.rechs.org/>
E-mail through web site: info@rechs.org
- Web site to Prof. Saito’s Lab.:
<http://www.hs.med.kyoto-u.ac.jp/saito-k/index.html>
E-mail: knisino@hs.med.kyoto-u.ac.jp
TEL/FAX 075-751-3957 (Prof. Saito’s Lab)

6. Advisory Staffs

(alphabetical order)

- FUNATO, T. Pharmaco-economics: M.D., Ph.D., Prof., Tohoku Fukushi Univ.
- HAYASHI, M. Health examination/screening: M.D., Health Promotion Clinic Center, Matsunami General Hospital
- HAYASHI, Y. Health and human services: Ph.D. Prof/Dean. Osaka Medical Univ.
- IMAI, S. Occupational health physician: M.D., Ph.D., Pathologist, Shiritsu Nara Hospital
- ISHIGURO, H. Molecular biology: Ph.D., Prof., Gifu Univ. of Medical Science

- KINOSADA, Y. Medical Information: Ph.D., Prof., Gifu Univ.
- KUSUYAMA, A. IT application: President, Core Mind, Inc.
- MATSUURA, Y. Zoonosis: D.V.M., Ph.D., Prof., Molecular Virology, Osaka Univ.
- MIYATA, M. Bio-tech journalist: Senior Editor (web master), Nikkei-Biotech Journal, Nikkei Bio-Publication

- NABESHIMA, T. Pharmacology: Ph.D., Prof., Meijyo Univ.
- NAGAMURA, Y. Medical science and food supplements: Ph.D., Prof., Suzuka Univ. of Medical Science

- NAKANO, H. Attorney
- OKA, S. Glycomics: Ph.D., Prof., Human Health Science, Kyoto Univ.
- SASAKI S. Chief advisor for BDHQ: M.D., Ph.D., Prof., Social and Preventive Epidemiology, Univ. of Tokyo

- SEISHIMA, M. Informative clinical medicine: M.D., Ph.D., Prof. Gifu Univ.
- SHIBATA. K. Dietary health record: Ph.D., Prof., Univ. of Shiga Prefecture
- SUGANUMA, K. Gynecologist: M.D., Ph.D., Prof., Kyoto Univ.
- SUSAKI, H. Dietary/Nutrition education: Ph.D., Prof., Nagoya Univ. of Arts and Sciences

- TAKAHASHI, Y. Smoking cessation program: M.D., Ph.D., Prof., Health Management Center, Nara Women's Univ.

- TAKEDA, E. Clinical nutrition: M.D., Ph.D., Prof. Institute of Health Biosciences, Univ. of Tokushima Graduate School

- YANO. T. Regional innovation: Ph.D., Prof., Mie Univ.
- YAMAKITA, Y. Life-style diseases: M.D., Director, Matsunami General Hospital

7. Escaology

Taken from a one sentence summary of the keynote described in "Proposal of a New Concept: Escaology for Food Science Education"---Japan is facing a food crisis involving issues of safety, quality, supply, and the general nutrition of the population; a major education campaign and food systems restructuring plan under the new concept of Escaology is proposed to bring this crisis back into balance. (ref. online journal of <http://www.escaology.com/>)