

● Program Objectives

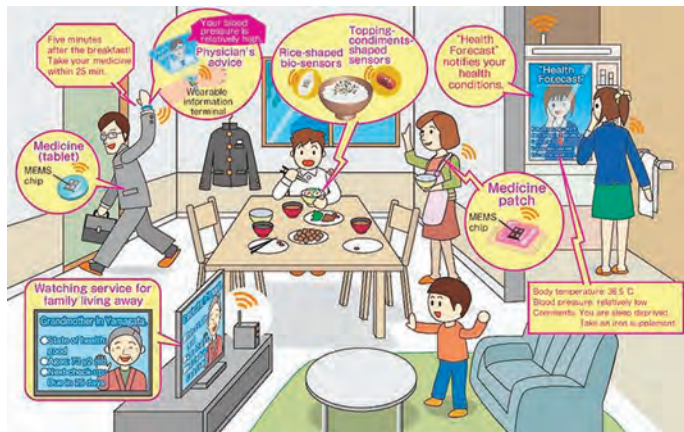
This program will create links between industry and academia to realize a level of innovation not possible at enterprises and universities alone. It was implemented in 2013 with support from the Ministry of Education, Culture, Sports, Science and Technology, and the Japan Science and Technology Agency in order to create a platform in Japan for producing revolutionary innovations.

Future businesses will have to continually innovate to survive in the midst of international competition and contribute to economic revitalization. This program will lay out ideals (a “vision”) for the forms that future societies and lifestyles will take, and attempt to predict currently dormant social needs. Based on this vision, the program will identify revolutionary research and development topics for the next 10 years. By clearing away obstacles in existing fields and organizations, it will be possible to conduct research and development through industrial and academic cooperation, from the fundamental research stage to practical application.

We have proposed the creation of joint headquarters with Toshiba Corporation and Nihon Kohden Corporation, and are working together with satellite branches at Niigata University, Tohoku Gakuin University, and Waseda University on R&D activities aimed at realizing our vision.

● Objectives of headquarters

The headquarters will develop ultra-compact, highly functional, safe sensors for use with rice, chopsticks, and tableware, as well as adhesive sensors. These will allow people to easily collect information about their own behavior and mental/physical condition during everyday activities. By doing this, they can ascertain their own lifestyle and health status. This peripheral awareness will contribute to the formation of strong relationships, through which a safe, secure, and vigorous society can emerge.

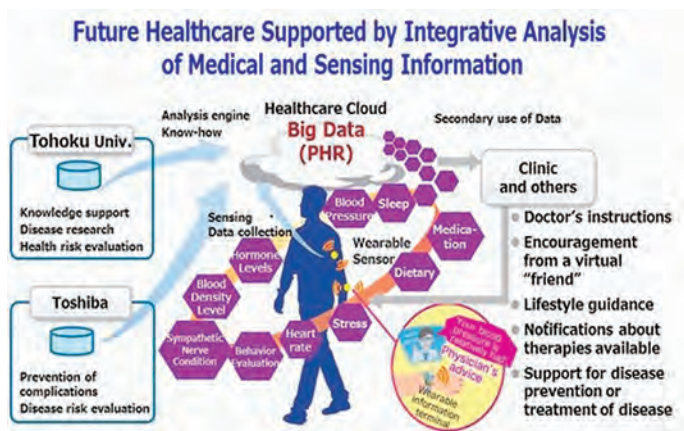


Our university is highly regarded internationally for gathering a number of cutting edge fields, such as MEMS (Micro Electro Mechanical Systems), electronics, communications, energy, materials, and medical technology, in one location, and working to find innovative social implementations in new life fields.

● R&D themes that unlock results

■ Pioneering sensor technology will enable the easy collection of data on the user's physical condition and environment during everyday activities (autonomous ultra low-power devices, bio-spintronics, MEMS).

■ The integrated management of large amounts of personal health data will contribute to individual wellness, but will also have secondary uses, such as security, beyond healthcare. Technologies (such as Private Cloud PHR) will accelerate the creation of new industries leading to widespread usability improvements in society and solutions to a variety of problems.



■ Advanced applications (e.g. weekly health forecasts) will “surface” plans for healthy lifestyles based on data obtained from personal genome and sensor data, and allow people to monitor the health of family members remotely.