3rd WELL AGING SOCIETY SUMMIT ASIA-JAPAN

Report

Ver. 3

Keynote Speech

"Contribution to Healthcare Innovation"

<Speaker>
Victor J. Dzau: President, US National Academy of Medicine

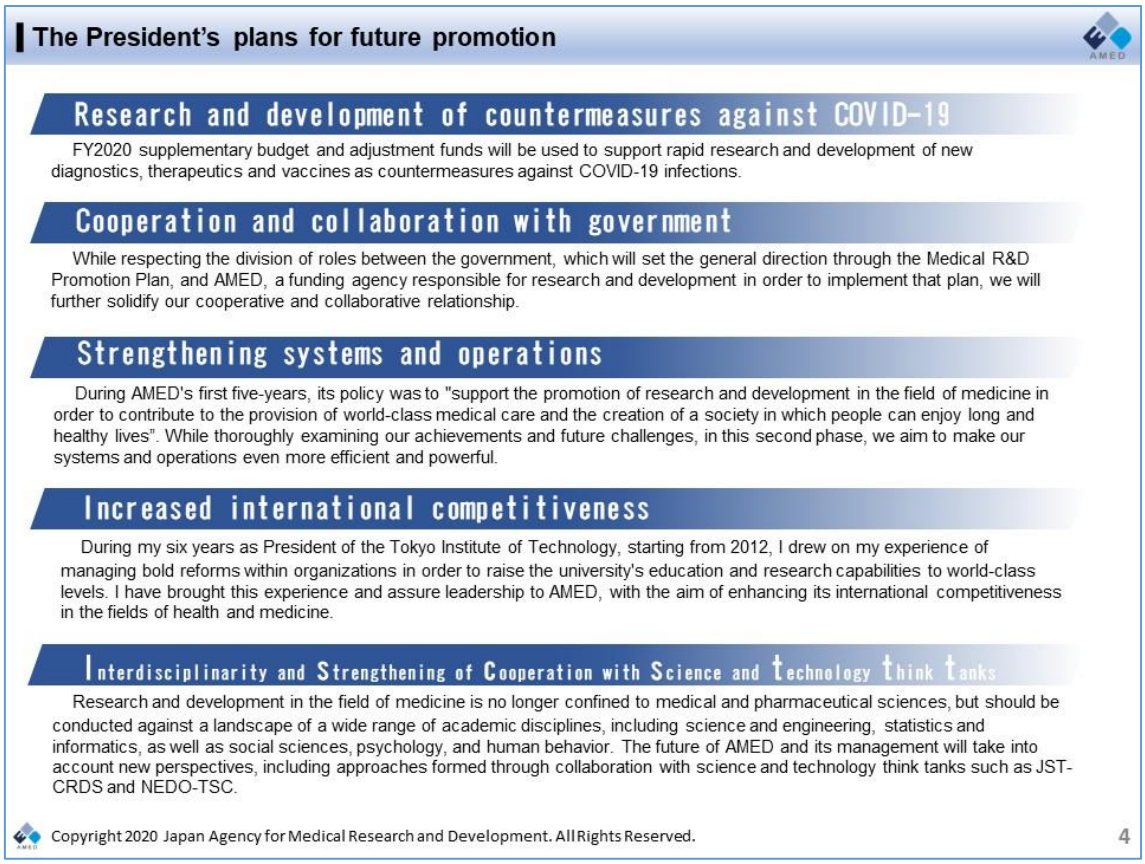
The population is aging globally, and in 2020, the population of those age 65+ will surpass those under age 5. It is imperative to mobilize the world to address longevity.

The National Academy of Medicine launched a Healthy Longevity Global Grand Challenge in 2019. We comprehensively assess the impact and challenges presented by global aging, and aim to recommend implementation of solutions to governments, NGOs, and the private sector. We plan to release a report in 2021. The Healthy Longevity Global Competition is calling for transformative ideas to extend healthy life expectancy. Ideas can focus on any stage of life and may apply to any field. Excellent ideas are awarded with cash prizes. We received 1,500 applications, and Round 1 updates were announced in October 2020. The Grand Prize winner(s) will be celebrated in September 2021.

<Speaker>
Yoshinao Mishima: President, Japan Agency for Medical Research and Development

AMED has entered its second term, and we wish to focus most on enhancing research and development of COVID-19 countermeasures. To do this, we must solidify our collaboration with the government, and as the funding agency, plan and execute in the general direction of research and development that the government sets. We must also verify issues, strengthen structure and operations, increase Japan's international competitiveness, and further enhance interdisciplinary collaboration in the fields of medicine and pharmaceutical sciences, chemistry, engineering, social sciences, psychology, and human ethology, as well as collaboration with think tanks.

Since February 2020 when the COVID-19 pandemic began spreading, AMED has launched many new programs using the government supplementary budget and other means. We will continue to support R&D addressing measures to combat COVID-19. We are participating in the Healthy Longevity Global Grand Challenge and anticipate solutions for a bright future.

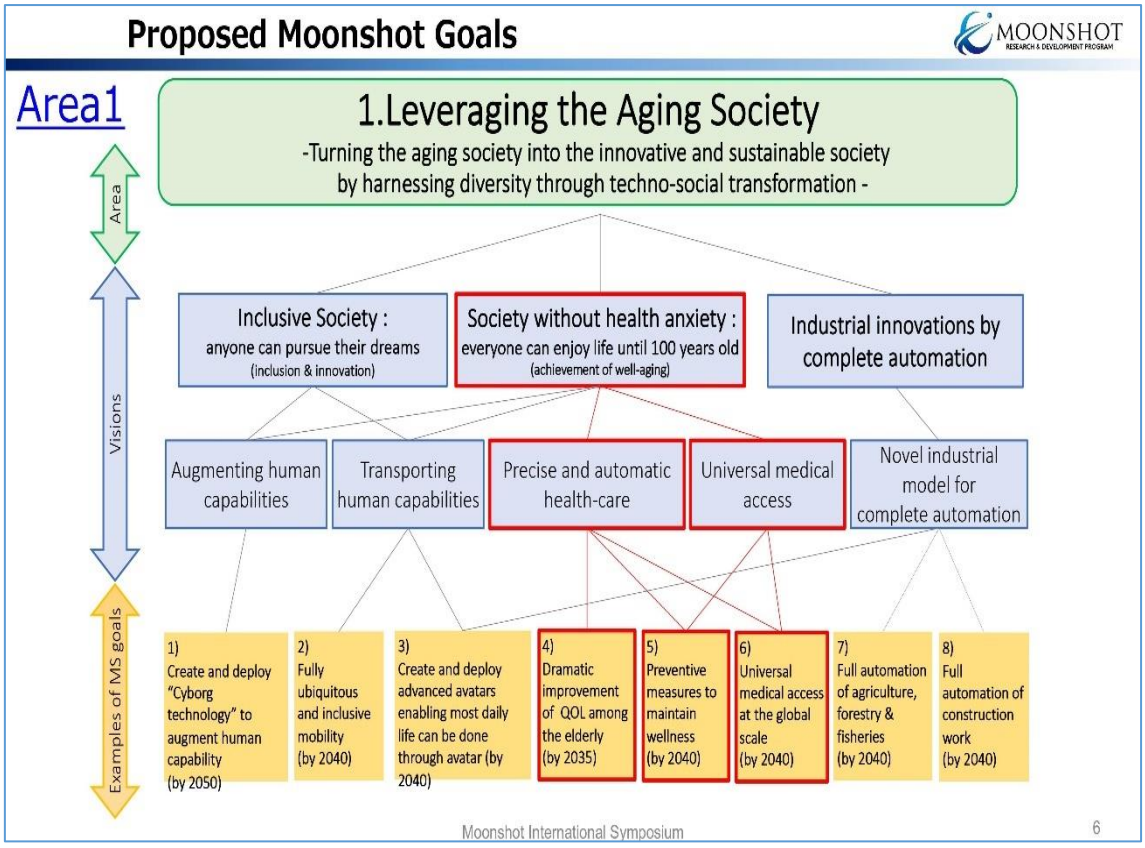


“Introduction of Moonshot Research and Development Program in the Health and Medical Fields”

<Speaker>
Hiroaki Kitano: President & CEO, Director, Sony Computer Science Laboratories

In many cases, R&D is exploration based on personal curiosity, leading to the discovery of new principles, which are then focused on and developed. Moonshot research and development is different. Like the Apollo plan in the 1970s that had the target of “going to the moon” from the start, Moonshot R&D is launched with the intent to achieve a target that has social impact. Japan’s Moonshot R&D targets 2050, with one example being to hold a FIFA World Cup with a fully autonomous humanoid team.

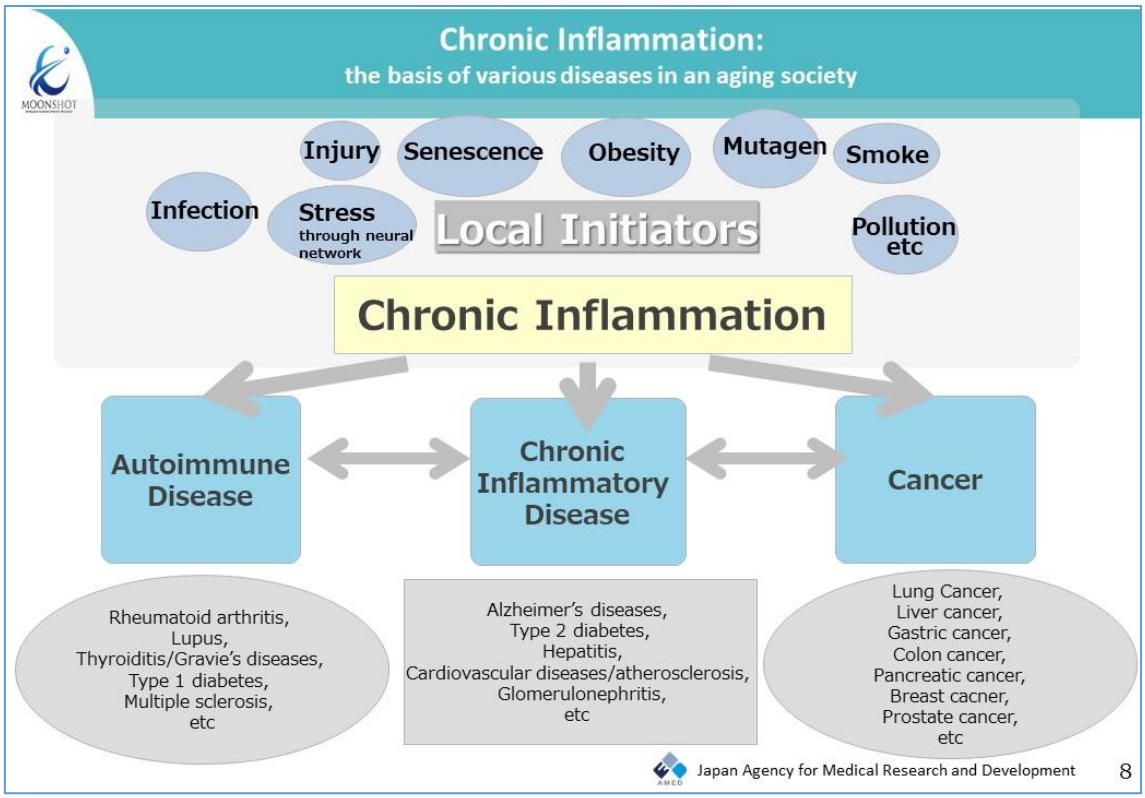
One Moonshot mission is to pioneer aging society with bold innovation. The aims are to dramatically improve the QOL of the elderly, maintain health through preventive medicine, and to ensure access to healthcare anytime and anywhere in the world. The goal of moonshot R&D is to gather all technology to bring wonderful impact to all.



<Speaker>
Toshio Hirano: President, National Institutes for Quantum and Radiological Science and Technology

Life expectancy for Japan in 2017 was 84.1 years, which is the second highest in the world, but this is approximately ten years longer than healthy life expectancy. This is because medicine has focused on curing and treatment. To enjoy life to the end, there is need to minimize the unhealthy period.

We have learned that chronic inflammation is a significant factor of various age-related diseases. Understanding and controlling chronic inflammation is key to resolving chronic inflammatory diseases such as Alzheimer's, diabetes, and arteriosclerotic diseases. We have also found that chronic inflammation is relevant to the aggravation of COVID-19. If we presume the possibility of new pandemics in the future, it is crucial that we gain an understanding of chronic inflammation. The Moonshot goal is to prevent and overcome most diseases by 2040 and to develop a sustainable medical/nursing system so that a healthy life until the age of 100 can be enjoyed without worries.



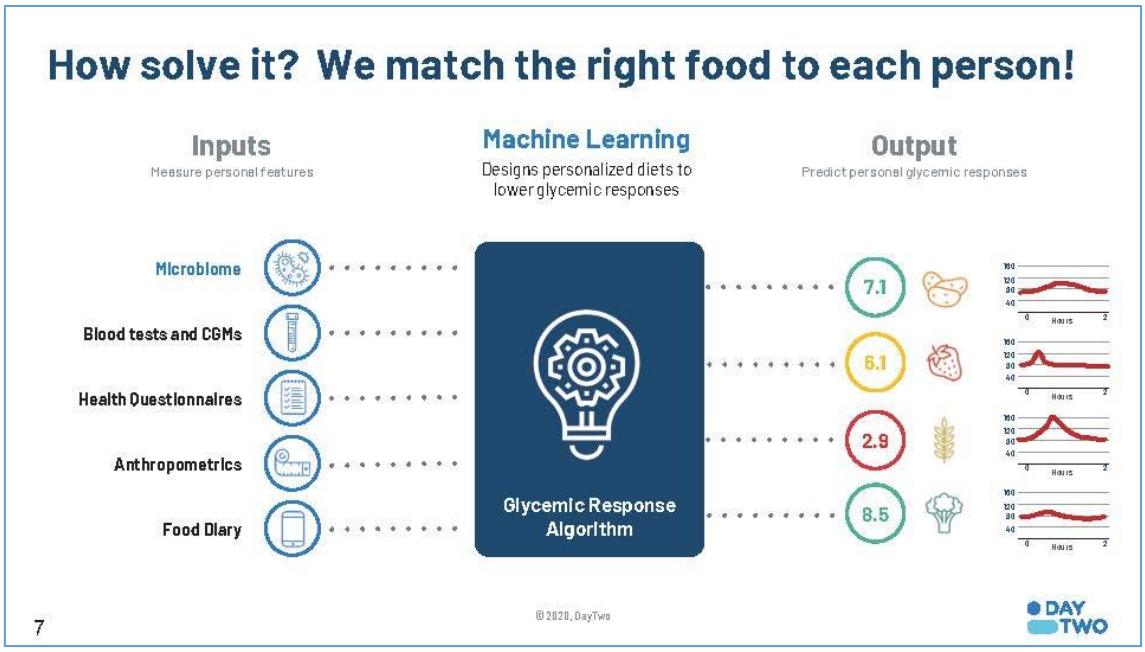
Panel Discussion

"Expectations for Moonshot Research and Development in the Health and Medical Fields"

<Speakers>
Hiroaki Kitano: President & CEO, Director, Sony Computer Science Laboratories
Aaron Del Duca: VP, Day two (Israel)
Yasuaki Hasebe: CEO, Activaid Inc.
Kian Chung Lee: CEO, Bio Cheetah (Singapore)
Nick Hird: Co-founder & CEO, AIKOMI (Japan)
Masahiro Kasuya: CEO, MELTIN MMI (Japan)

- To start, each panelist gave a brief presentation about innovative technologies in the health and medical fields.

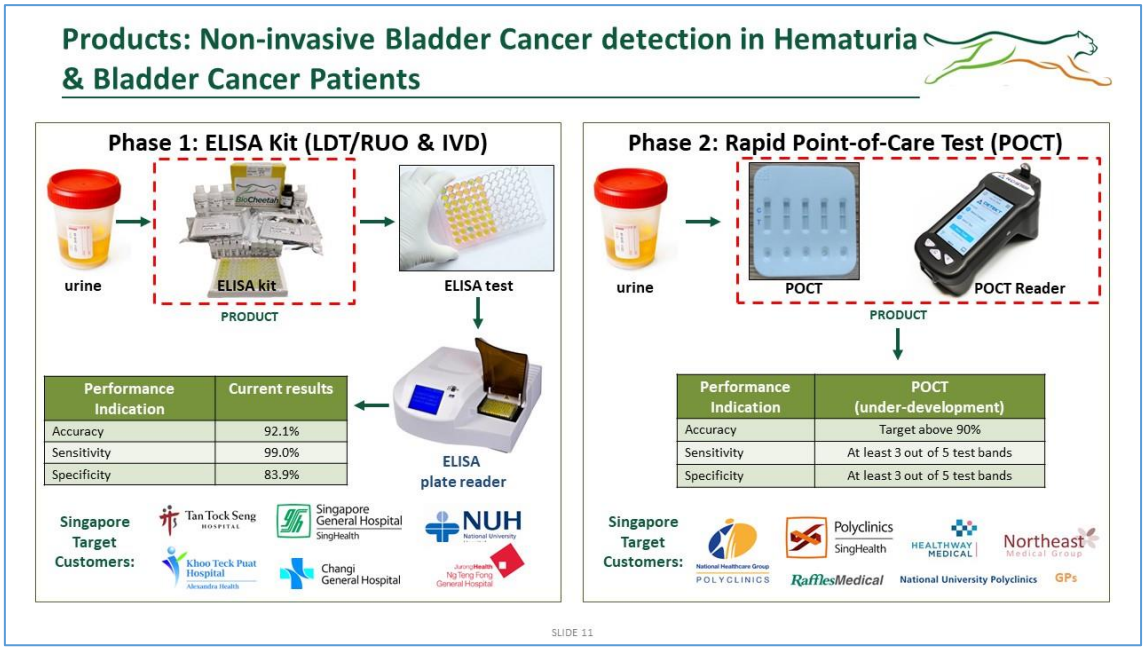
Aaron Del Duca: Glucose levels after eating the same food vary by person. We researched the enteric microorganisms of thousands of people, studying how glucose levels react according to certain foods to develop a program that predicts personal glycemic responses when eating. We developed an app that takes the results from microbiome and blood tests and continuous glucose monitoring (CGM) of diabetes patients, as well as body measurements, questionnaire results, and a daily food diary to generate glycemic response algorithms through AI learning. Based on this, personal glycemic responses are predicted. This glucose management program has the potential to reduce medication and diabetes, as well as healthcare costs. There are clinical needs, and we hope to reform the standard of care for diabetes.



Yasuaki Hasebe: Personalized medicine is becoming mainstream in recent years, especially in the field of cancer. Those patients are segmented, making it a challenge to integrate them for clinical trials. Patient integration accounts for 30 to 40% of clinical trial costs. Drugs would be approved quickly if patients could proactively take part in clinical trials, so we developed an app to resolve this. We first targeted inflammatory bowel disease (IBD), which is a rare disease. The physical conditions and other information entered by trial participants to the app are used to develop drugs, while enabling patients to manage their health. The app also provides matching for patients and clinical trials. Many patients are interested in clinical development. We hope to expand this to the field of cancer.

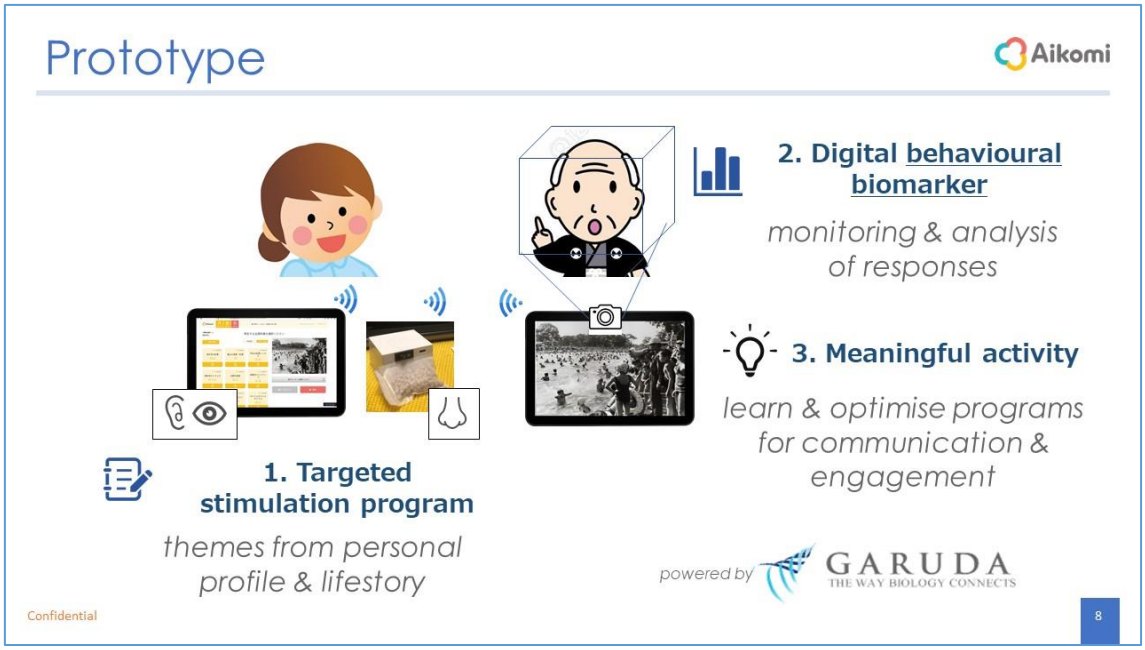
Kian Chung Lee: When bloody urine is discovered after waking up in the morning and cancer is suspected, cytoscopy, which is invasive and requires anesthesia, is the standard process. In Singapore, it requires a four- to five-week wait and is expensive as well. As of 2018, bladder cancer is the fifth most common cancer among Japanese men. Aging is the largest risk factor, so this is a large issue in Japan, where aging is accelerating.

We have developed a liquid biopsy for detecting biomarkers in urine samples that are specific to bladder cancer and will launch two products, one for hospitals and one for general practitioners. Unlike cytoscopy, general practitioners can conduct testing. There is a possibility that testing could be done at home in the future as well. We will continue with clinical testing and hope to discover new biomarkers to expand to urological cancers.

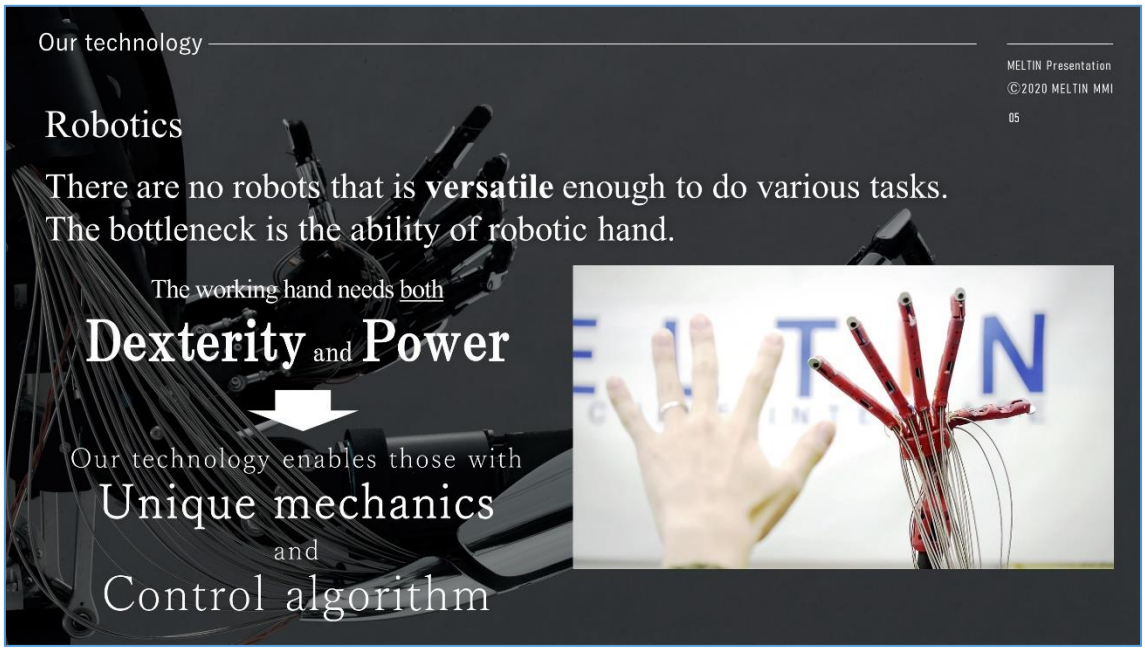


Nick Hird: We developed technology using smart devices such as a tablet to provide multisensory

visual and hearing stimulation to dementia patients so they can communicate with caregivers. Creating emotional engagement with caregivers can reduce the anxiety of dementia patients. We monitor the dementia patient and analyze what kind of stimulation is effective to develop a more optimized program. Prototypes have already been tested at two universities in Japan, and they have been shown to be effective in improving communication with many dementia patients. Behavioral change was also seen. Based on these results, we are planning to launch two types of clinical testing (for nursing facilities and for home) in 2021 in Japan.



Masahiro Kasuya: Our technologies are based on biosignal processing and robotics technology. We successfully created a robotic hand that has both dexterity and power by harnessing unique mechanics and a control algorithm. We fitted a person who had lost his right arm in an accident with this robotic hand, and he was able to completely control the right arm functions. It's also possible to make this function as a third hand, thus extending the body. A person's body function can also be reactivated by sending simulated biosignals. Upon sending pulse signals by attaching electrodes to a person whose legs were paralyzed from an accident, the muscles reacted and the legs could move. Cyborg technology opens new possibilities to humans. It's even possible to have avatar robots do work in space. We aspire to create a society where anyone can participate accordingly without being limited by a physical condition or age.



- Issues brought up regarding practical application of new technologies included the challenges of gaining approval after proving efficacy in clinical tests and the need to have authorities understand that there is alternative medicine besides drugs.
- Regarding integration of the newest technologies, one opinion was that they each have their advantages and disadvantages, and synthesizing them could potentially elicit the best performance.
- One opinion was that changing perspectives of dementia would be more meaningful for the long term rather than intervening with technology. There was also an opinion that collecting data is beneficial, and collecting large volumes of data while protecting personal information would lead to early achievement of targets, so people should participate more proactively.
- Molecular biology has rapidly advanced in recent years, and it was pointed out that issues are how to integrate this with traditional medicine and how to apply the latest technologies to this.

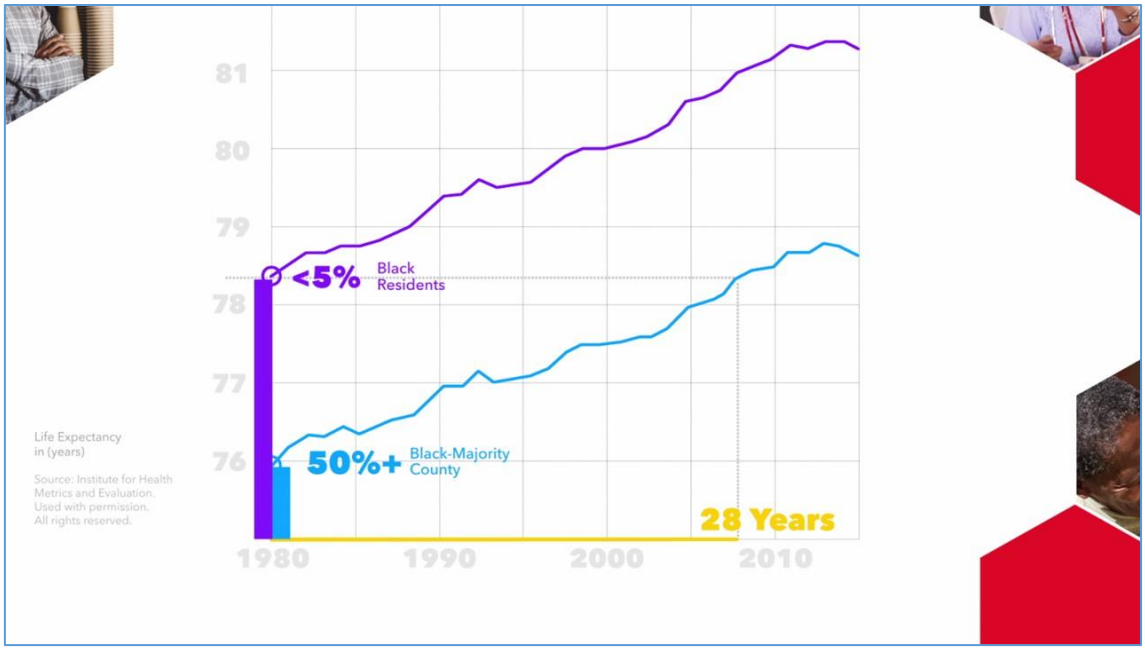
Keynote Speech

“Equity and Longevity”

<Speaker>
Erwin J. Tan: Director, AARP

AARP focuses on empowering Americans age 50 and over. Across the world, people have been

living longer than ever before. However, not all countries are experiencing the same gains of longevity and not everyone is living longer in each country. According to recent US data, there are disparities in life expectancy from age 50 depending on where you live in the US. Life expectancy growth between 1980 and 2014 showed a maximum 3.2-year difference between counties. In 1980, people expected to live to the age of 79 in counties with less than 5% Black residents, while average life expectancy was 76 in counties with 50% or more Black residents. It took 28 years for Black-majority counties to catch up to the level of where counties with less than 5% Black residents were in 1980. Racial disparities became clear with the difference in life expectancy according to place of residence. This is not unique to the United States. As we respond to the ongoing COVID-19 pandemic, now is the time to eliminate the adverse impact of structural inequalities on communities. Through discussions at the 3rd WASS, I'd like us to consider a future where everyone can have an equal opportunity for a longer and healthier life.



Panel Discussion

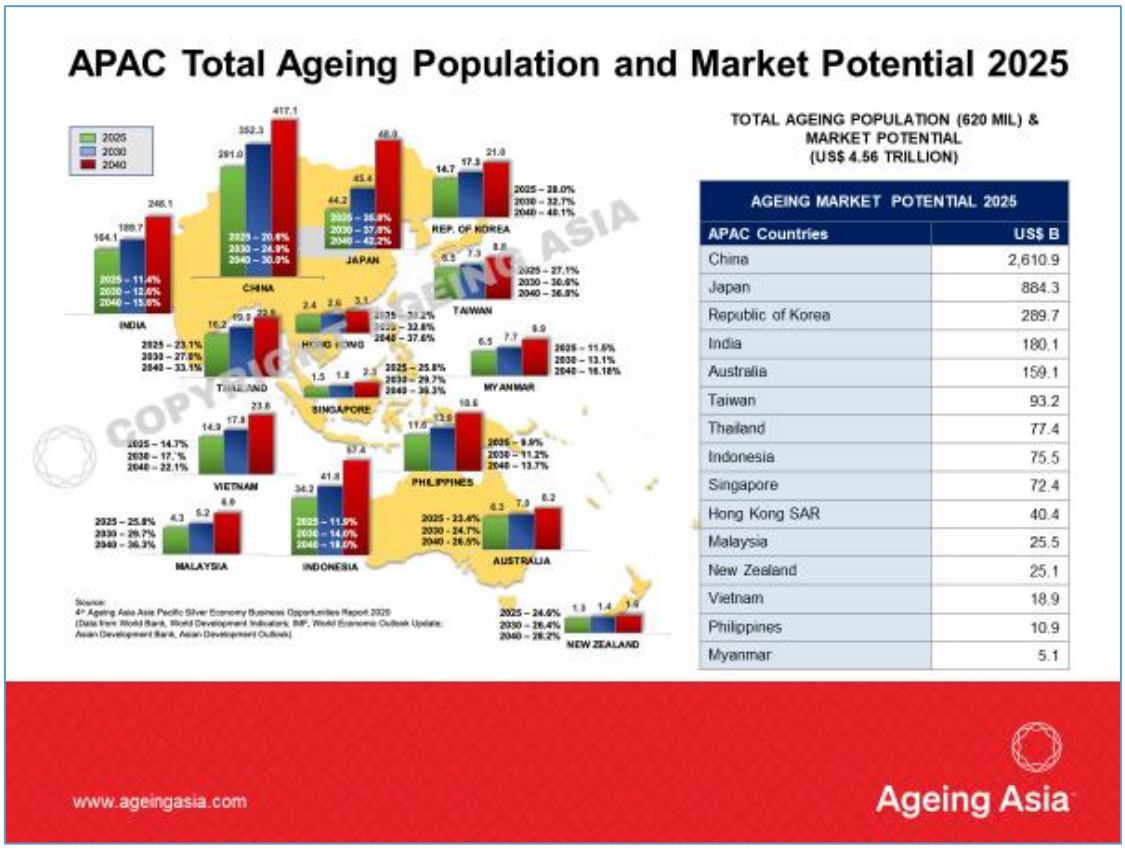
"Toward Well-Aging Society During/After COVID-19"

<Speakers>
Janice Chia: Founder & Managing Director, Ageing Asia
Ben F. Belton: Director, Global Partner Engagement AARP International
Michael W. Hodin: CEO, Global Coalition on Aging

Shinya Kuno: Professor, Department of Sports Medicine, University of Tsukuba

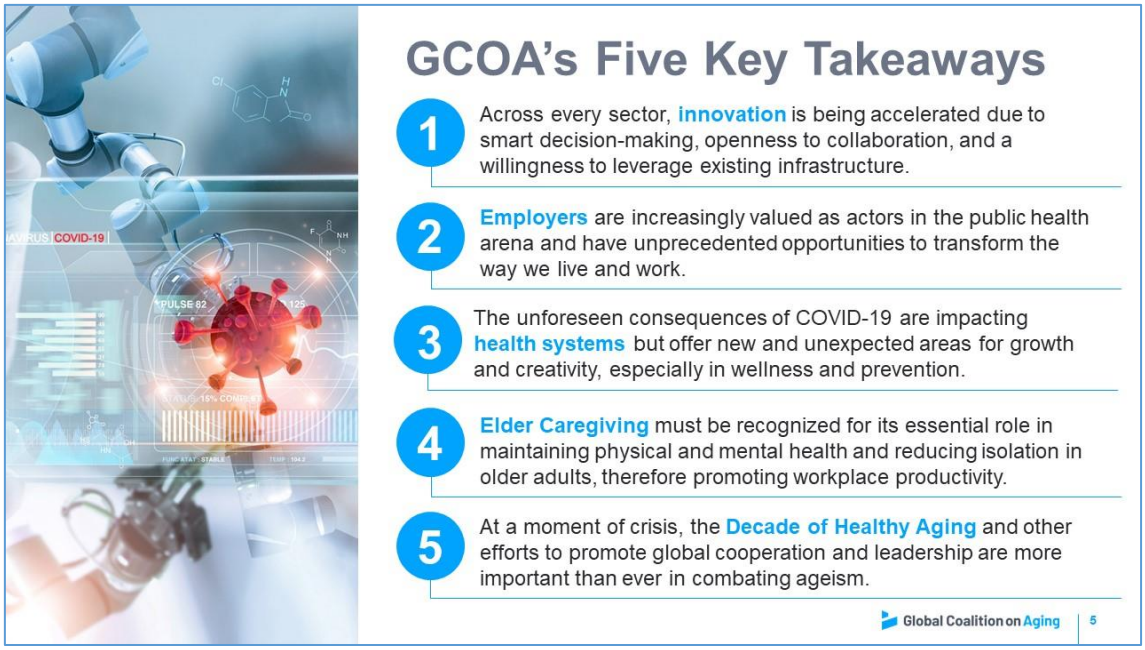
● To start, each panelist gave a brief presentation about initiatives for the aging society.

Janice Chia: Ageing Asia is working to create a new network by consolidating care models in the Asia Pacific. New developments attributed to COVID-19 include tokens for the elderly to serve as contract-tracing devices without having to use a smartphone, low-cost internet services at $5/month for low-income seniors, and at-home medical treatment. At-home care for those with dementia is also being considered for the future. Demand will grow in the Asia-Pacific region for services such as dementia care, healthcare, game-like rehabilitation, and addressing loneliness. The market potential for not only the elderly, but also children is projected to reach approximately 4.6 trillion dollars by 2025.

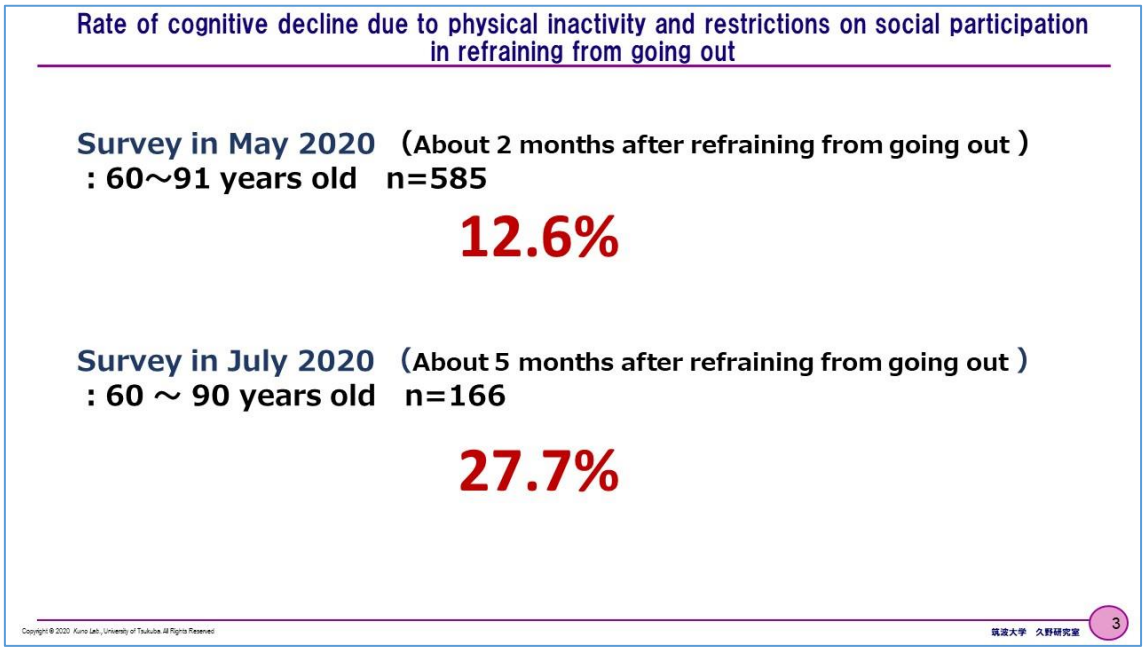


Ben F. Belton: AARP conducts global activities focused on life expectancy and well-being. With COVID-19, we are providing support for developing countries where infection risks run high and many people are facing poverty from losing their jobs. Measures include providing effective prevention and ensuring that the elderly can stay safely in their communities. We use all kinds of technology to have young people provide support remotely to the elderly.

Michael W. Hodin: Healthy aging requires spending, so investment is needed. Using this investment to create a system for healthy aging can improve QOL and reduce the burden on caregivers. Since the outbreak of the COVID-19 pandemic, we have focused on three areas: healthcare transformation, the "new normal," and the intersection between the two. We offer five key takeaways. Starting this year (2020), WHO's Decade of Healthy Ageing began. It is crucial to balance healthy aging while maintaining economic activities.



Shinya Kuno: According to 2009 WHO data, lack of physical activity is the fourth leading cause of mortality and the largest risk for dementia. There are also survey results that dementia is on the rise in Japan because people are refraining from going out due to COVID-19. 80% of senior citizens go out less, and the decline of opportunities to enrich their lifestyles is causing them great stress. The elderly who are age 80+ have low ICT literacy, thus online communities are not a realistic option. The disparities from age and ICT literacy are concerning. An ANA Group in-house venture is developing a robot that can converse with remote control. We need technology that senior citizens with low ICT literacy can use.



- Regarding how to resolve digital disparities, there were many comments from panelists about the importance of providing products and services with an understanding of the elderly, and of conducting development while listening to their opinions. Dr. Kuno stated, “It’s important to be proven effective for the elderly, to be authorized by the government or other agency before being distributed, and to be user-friendly for even those with low ICT literacy. We are currently testing remote-control robots with senior citizens who live alone, in collaboration with Sompo Japan Insurance Inc., NTT DOCOMO, and Mitsuke City in Niigata Prefecture, and are finding that there is quite a gap in the perspective of engineers vs. the frontlines that needs to be closed. We hope to implement this soon.”
- Regarding how to effectively raise health literacy, there were comments that improving this among medical and nursing workers is effective for supporting the elderly. Another comment was that when a COVID-19 vaccine becomes available, there will be need to quickly conduct a campaign to educate the importance of this vaccine to ensure that people get vaccinated. Dr. Kuno said, “People who are oblivious to health are not interested in collecting information. To resolve this, we are training tens of thousands of health ambassadors to communicate health information via word of mouth to this disinterested group. We have data that health literacy is improving in areas where training has been completed.” Ms. Chia commented that health ambassadors were active in Singapore as well.
- To the question of how Japan perceives aging society, Dr. Kuno responded, “In the era of a 100-year life, people have about 30 more years of life even if they postpone retirement. The issue is how we can extend healthy aging. According to our research, the dividing point between those

who become frail and those who stay healthy is around age 75. Enhancement of the system to support the delicate elderly is needed in Japan. We need hybrid communities that are not only online but also onsite (physical venues), and technology should be supporting this."

Keynote Speech

"New Efforts for Aging-related Diseases"

<Speaker>

Ernst van Koesveld: Vice Minister for Long-Term Care, Ministry of Health, Welfare and Sport, Kingdom of The Netherlands

Our population is getting older in the Netherlands as well. One in every 33 people with a paid job has a parent living with dementia. It's said that by 2040, the proportion will be one in every eight. The Dutch government has announced our national dementia strategy 2021/2030, indicating our policies to double the budget for a world without dementia and to provide optimum support and stimulation to those with dementia so they can participate in society. We also have families and careworkers experience simulations of dementia for better understanding.

As part of our international strategy, we collaborate with foreign companies with the 2040 targets of extending healthy aging by at least five years, reducing health inequalities by 30%, increasing at-home care by 50%, and increasing social participation by the chronically ill or disabled by 25%. We need technological and social innovation for these achievements and will work with stakeholders around the globe while making investment. Japan is an important country to the Netherlands, and we anticipate that we can cooperate in the business fields as well.

Panel Discussion

"Prospects for Public-Private Partnerships to Create Innovation for Dementia-Inclusive Societies"

<Speakers>

Ryoji Noritake: CEO, Board Member, Health and Global Policy Institute

TANAKA Shigehiro: Vice Minister for International Affairs, Ministry of Economy, Trade and Industry

Keisuke Naito: Corporate Officer, Chief Digital Officer Head of Consumer Experience Transformation HQs Deputy President, Eisai Japan

Ville Niemijärvi: CEO, co-founder, Onerva Care

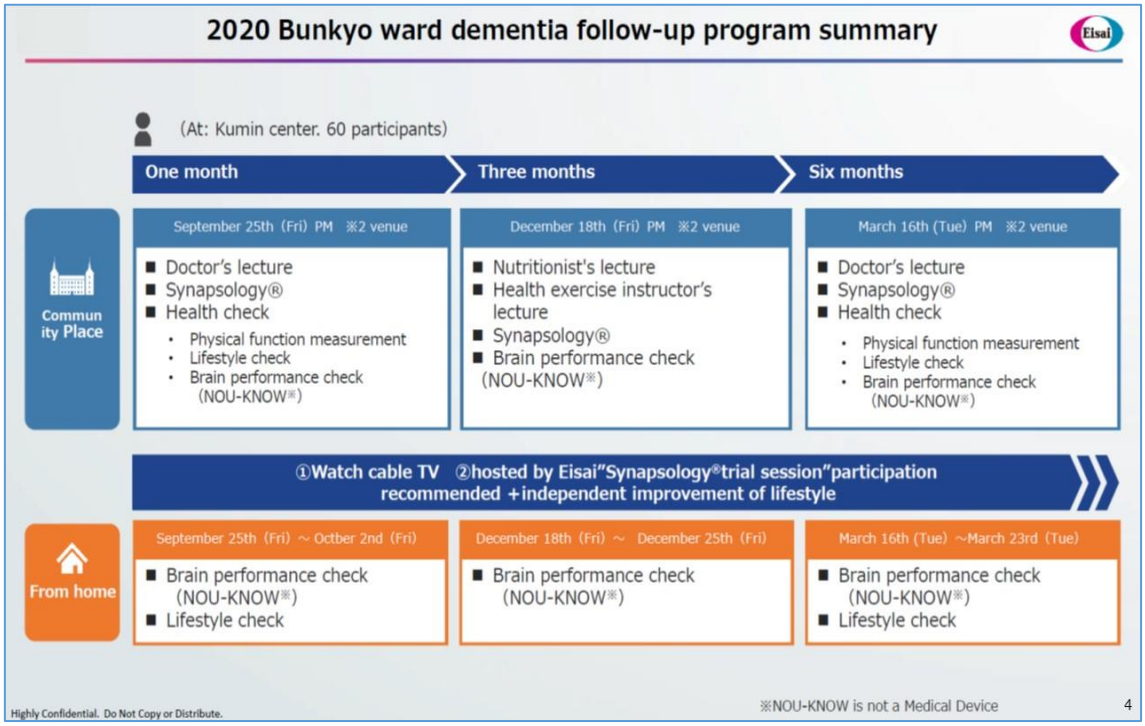
Bart Scheerder: Director Innovation in Digital Health, University Medical Center Groningen

To start, moderator Ryoji Noritake spoke of how HGPI builds patient-centered medical care systems and focuses on holding a global perspective through discussions with stakeholders with the objective of providing diverse support to the elderly, including those with dementia.

- This was followed by brief presentations by each panelist regarding partnerships for dementia-inclusive societies.

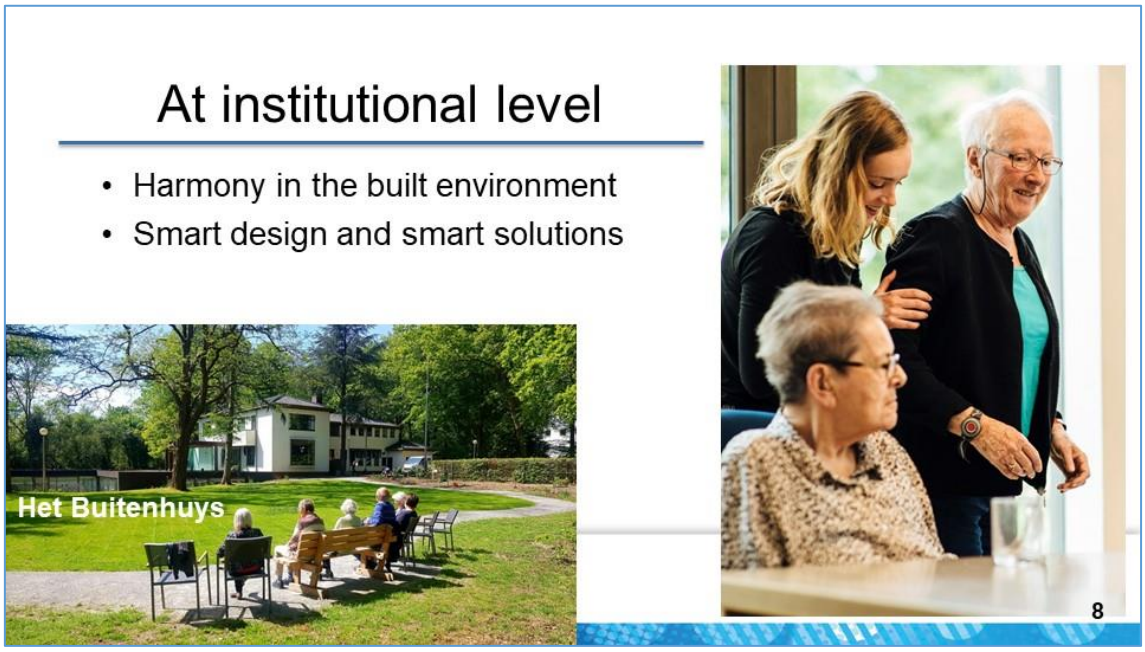
TANAKA Shigehiro: New businesses are being launched for dementia-inclusive societies, but their social/economic impact and friendliness to people with dementia must be clarified for business sustainability. METI has launched a new program to verify the social and economic impact of products and services for dementia-inclusive societies. This involves industry, academia, local governments, and other, with verification results to be indicated in three years. Eleven products and services are subject to this, including not only shopping and transportation, but also employment. It is important that their quality and functions fulfill the needs of those with dementia and that they are feasible as businesses.

Keisuke Naito: Early treatment is crucial to delaying and preventing the decline of cognitive functions, thus households need to detect abnormalities at an early stage. Bunkyo Ward in Tokyo launched a dementia follow-up program in 2020 under public-private partnership. This has a total six-month cycle with lectures by doctors, nutritionists, and health exercise instructors, a program called Synapsology, health checks, and brain performance checks every three months. Those who have difficulty coming to the venue can participate online from home to check their brain performance. This verifies if abnormalities in cognitive function can be detected in the household. We wish to have healthy people as well as those with dementia to participate in this program and standardize this cycle as a culture.



Ville Niemijärvi: It is a challenge for the elderly to connect with others. We develop apps to link the elderly with other people and a virtual assistant that can converse with audio. In Finland, we also have wristwatches with GPS and a phone function, small robots that dispense medication at the right time, monitors that detect a person falling, and remote care services via video. These products and services are said to reduce costs and the burden on caregivers. We are also considering a partnership of startups, such as combining the medication dispenser robot with our virtual assistant. However, it takes 3–5 years for startups to commercialize their products, and they run out of money during that time. Although we can develop technology, it is a challenge to change minds and cultures.

Bart Scheerder: There is a need for many stakeholders to cooperate in creating a dementia-inclusive society. I believe that harmony, or "*wa*," as you say in Japanese, is important. Harmony is crucial also to linking currently-available technology such as AI, smart living, and home automation to support for those with dementia. I wish to introduce an example of public-private partnership in a northern city of the Netherlands. We took 20 old caring facilities and rebuilt them to nine facilities that merge smart living and care technology. At these new facilities, there are gardens so residents can be in contact with nature and enjoy growing new vegetables. Importance is placed on harmony with the environment and local community for mutually-beneficial initiatives, thus resurrecting this former industrial city to a residential area.



- There was a comment that dementia-related products and services need to be verified for approval by the authorities, and that it is important to assess how friendly they are to the elderly. Mr. Niemijärvi said, “Finland doesn’t have a standardized procedure or process for assessment, so we repeatedly explain to local governments and companies how much cost and burden can be reduced. This costs money, so there is need to standardize assessment.”
- Mr. Naito pointed out the public-private partnership issue that “While there is need to individualize products and services according to needs because circumstances differ by region and stakeholder, there is also need to have a common understanding of what is fundamentally needed.”
- Mr. Tanaka indicated his view that “It’s important to quantitatively assess QOL in the future and reduce time and cost for services. It is also necessary to support entry from other fields.”

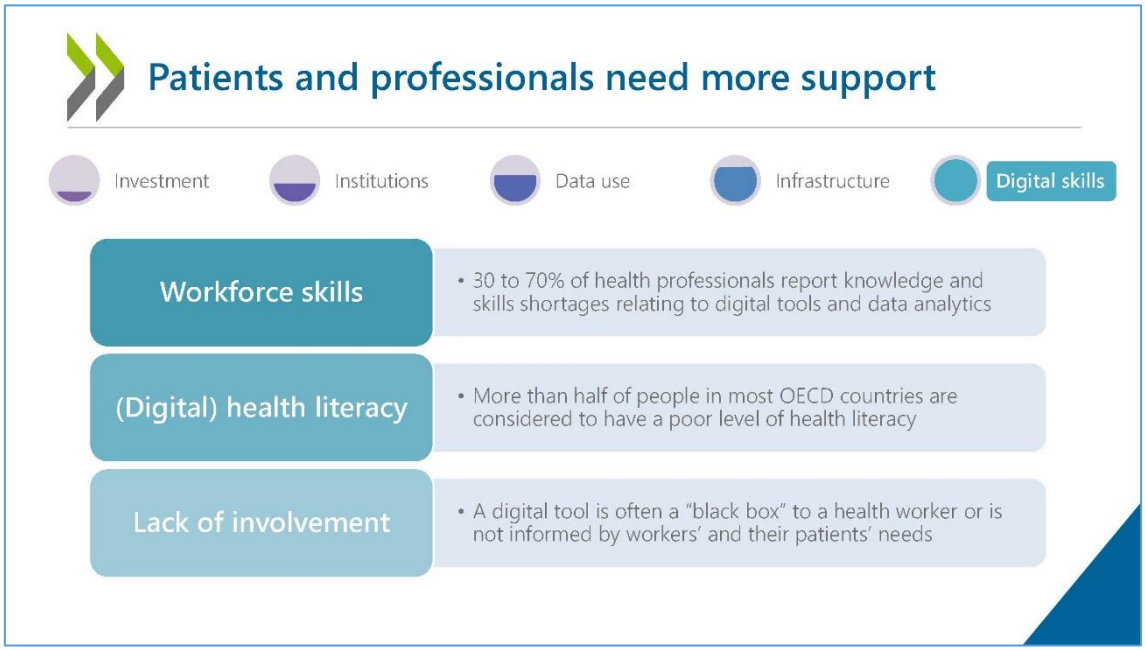
Keynote Speech

"The Digital Transformation in Health Under COVID-19"

<Speaker>
Francesca Colombo: Head of Health Division, OECD

Digital health holds great potential, yet this is not being fully used. The key reason is that there is less investment compared to other sectors. Policies get in the way of efficient data usage. In countries where data is used efficiently, data and language are standardized at national levels. Infrastructural upgrades such as broadband and digital skills are also challenges. Strategies to link healthcare with its surrounding industries, legal frameworks to appropriately utilize data, and digital literacy of the people are needed for digital health.

The situation has changed completely with the COVID-19 pandemic. We were able to discern infection status by accumulating real-time data, which connected to decision-making. Everyone has realized the potential of digital health, so this timing poses an opportunity. Coherent strategies and governance with a perspective of the post-COVID era are needed. Rather than building upon the conventional healthcare system, we must fundamentally reevaluate it.



Panel Discussion

"Digital Healthcare Innovation Under COVID-19: Possibilities for Using Personal Health Records in New Ways"

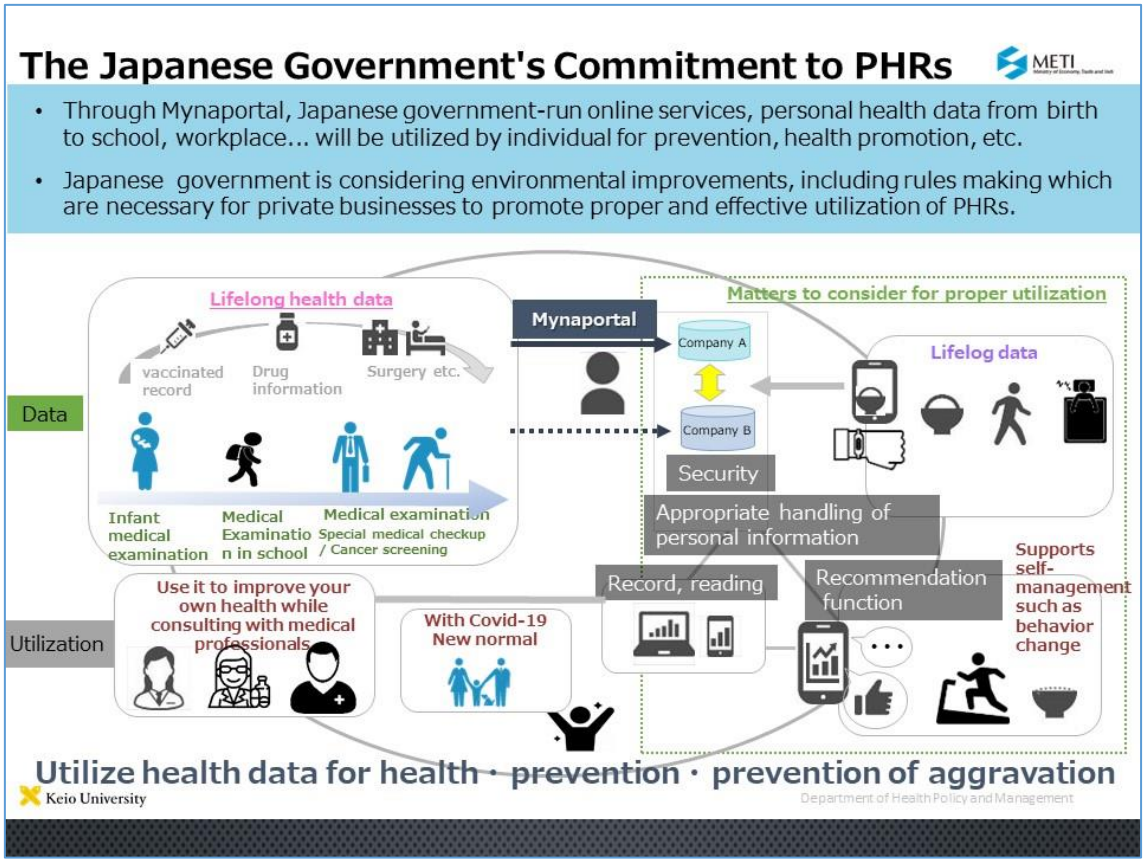
<Speaker>
Takanori Fujita: Project Lead, World Economic Forum Centre for the Fourth Industrial Revolution Japan
Charles Alessi: Chief Clinical Officer, HIMSS
Hiroaki Miyata: Professor, Health Policy and Management at the School of Medicine, Keio University
Satyanarayana Jeedigunta: Chief Advisor, World Economic Forum, Centre for the Fourth Industrial Revolution, India

- Each panelist gave a brief presentation about digital health utilization initiatives

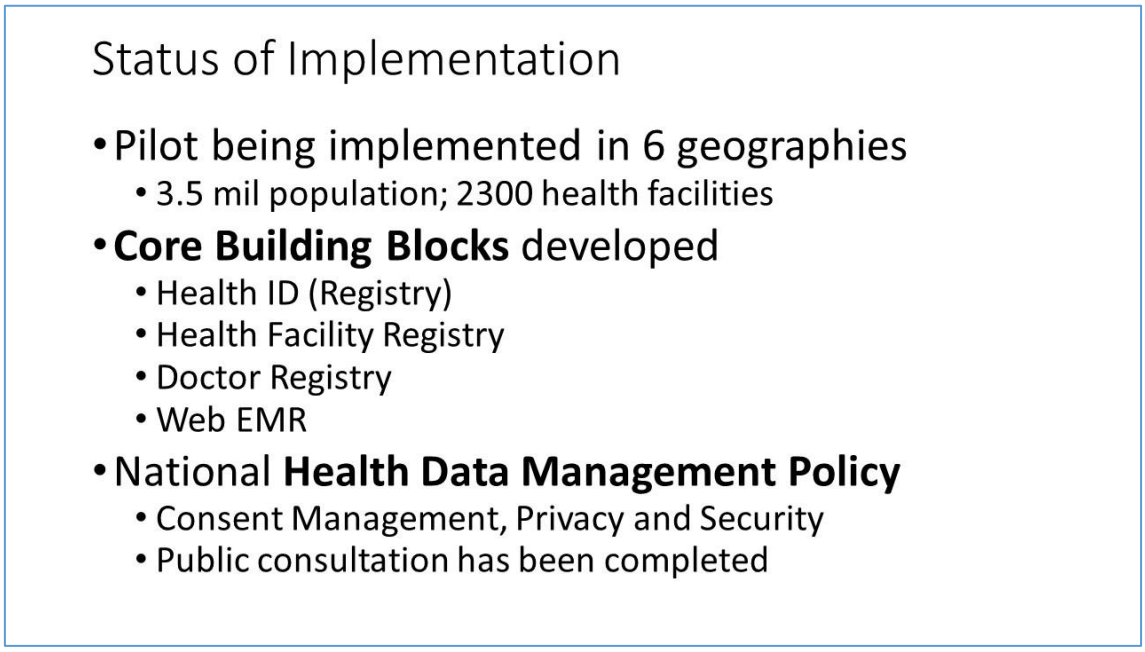
Charles Alessi: We work through the global ecosystem to realize the health of every human everywhere in the world. In England, we conduct health checks to all healthy citizens age 40 to 74 and accumulate data to observe the changes from age and the risk factors of lifestyle diseases. A year ago, we also launched a program to observe individual risk factors, integrating this with data acquired from health checks. The biggest challenge in this type of initiative is for the government and other data management entities to foster trust in those who provide the data. There are many ethnicities in the world, and their circumstances differ. Data management entities must be transparent, sincere, and provide ongoing communication.

Hiroaki Miyata: In Japan, we were able to utilize real data for the first and second waves of COVID-19 to analyze infection risks by occupation and geographical region. Data is power, but it is monopolized by a small group of giant IT firms and the government. However, the General Data Protection Regulation (GDPR) was implemented in 2018 to regulate personal data protection in the EU. In Japan,

the concept of “Data Free Flow with Trust” was advocated last year and Electrical Health Records (EHR) for managing personal health information online is being promoted. In 2021, citizens will be able to see the results of their health checks and in two more years, their prescription drug records. Utilization will spread to various sectors, including linkage to early detection of dementia. By sharing data, we can realize a society where no one is left behind.

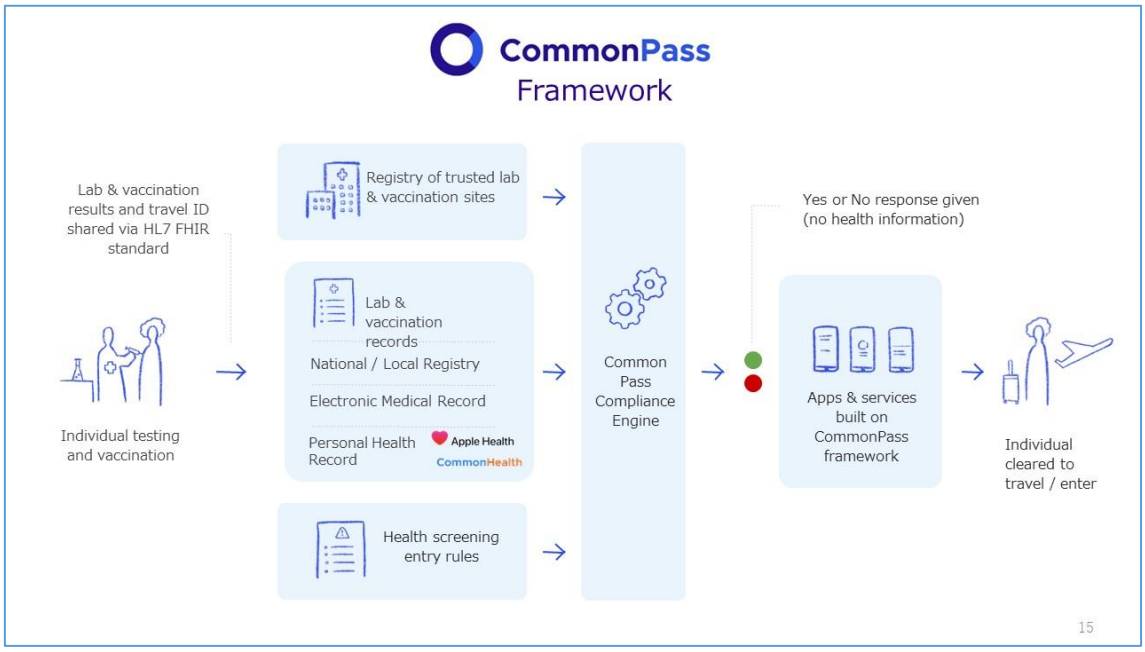


Satyanarayana Jeedigunta: India is geographically large, with diverse ethnicities and languages, and the many diseases are a heavy burden. We have several public and private medical systems, but they are all independent of each other. Amid this, we are working to build a national medical system. We announced the National Health Policy 2017 and aim to provide low-cost universal health insurance, better access, and a holistic approach for medical care. To gain the understanding of our diverse citizens, we clearly presented the basic principles of the Digital Health Eco-system. A prototype of this is currently being implemented for 3.5 million people at 2,300 health facilities in six regions. Health IDs are issued to individuals, health facilities and doctors are registered, and web electronic medical records are implemented. We also indicate policies about data management, including consent management, privacy, and security. Public consultation has been completed, and this will be announced soon. We will continue with execution and aim to substantiate this in three years.



Takanori Fujita: Informed consent is of top importance in fostering trust to share data. As a data governance model, we advocate the Authorized Public Purpose Access (APPA) concept that allows data usage without the explicit consent of the individual as long as it is for a specific public purpose. This is applied for situations such as natural disasters, pandemics, and cancer registries.

To enhance the safety of cross-border travel amid the COVID-19 pandemic, an international NPO supported by the Rockefeller Foundation and the World Economic Forum have developed "CommonPass." This is a digital certificate of international-standard PCR test results or vaccination, and can be displayed on a smartphone or other when crossing borders (immigration check). The CommonPass project kick-off was in July 2020, and pilot-testing will start in Japan as well for the 2021 Tokyo Olympics.



- It was discussed how to address diversity and integrity with digital health, especially in collecting and using the health information of the elderly and disabled. Many panelists stated that it is important to personalize according to individual circumstances and to offer incentives to raise motivation. As an example, a Chinese company established a system where bonus points could be earned by sending electronic money as New Year gifts to grandchildren, which increased electronic money usage on smartphones among the elderly. There were opinions that when using personal digital health information, trust is the most important factor, thus it is crucial to clearly indicate the purpose, and also that now is the time to openly discuss the benefits of using data for healthcare.
- There were many opinions that transparency and accountability are essential to fostering trust amid the COVID-19 pandemic, and that there is need to have the public understand the benefits they could receive from digital health. It was pointed out that some people on the healthcare side do not want to adopt digital health, so there is need to clearly indicate the benefits not only for the general public, but for the medical institutions as well. It was unanimously agreed that as a country that is aging ahead of others, Japan should take the initiative in promoting this.

Closing Session

"Sharing the challenges and solutions addressed at the 3rd WASS together with session moderators"

<Speakers>

INAMURA Takuma: Director, Healthcare Industry Division, Ministry of Economy, Trade and Industry

Hiroaki Kitano: President & CEO, Sony Computer Science Laboratories

Ryoji Noritake: CEO, Board Member, Health and Global Policy Institute

Takanori Fujita: Project Lead, World Economic Forum Centre for the Fourth Industrial Revolution Japan

- Each panelist stated the key takeaway from the session they were moderator of and what they anticipated of Japan.

Hiroaki Kitano: "Intervention and preventive measures that differ from conventional treatment are being born. While there are challenges, development is accelerating with the COVID-19 pandemic. We wish to share information with other countries to promote them further."

Janice Chia: "Connecting with other people is important to delay the progress of dementia; we need online-offline hybrid support."

Ryoji Noritake: "Innovation is needed, not only for products and devices, but also for design and environment. Senior citizens have not lost their spirits, so emotional care such as enjoying art is also important. There is potential in partnerships between startups, while both individualization to accommodate the features of stakeholders and universality are needed for public-private partnerships. The participation of Japan in frameworks is anticipated."

Takanori Fujita: "Fostering trust has top importance, and we need to have transparent, open discussions. It is effective to offer personalized service and incentives for individuals to sense the benefits. Japan should demonstrate leadership."

- All agreed that while COVID-19 is a challenge, it is also an opportunity. They sensed that innovations and technology integration that were thought to be needed from before have accelerated. It is important that individual mindsets are reformed and that benefits of digital health are understood. There was also a comment that based on experience from COVID-19, a surveillance system should be built to prepare for future pandemics.

- There were comments that there is need for investment in digital health, and a need to consider paying investment rather than just treatment fees for the well-being of senior citizens. Also, that there is a need for international consensus to collect big data.

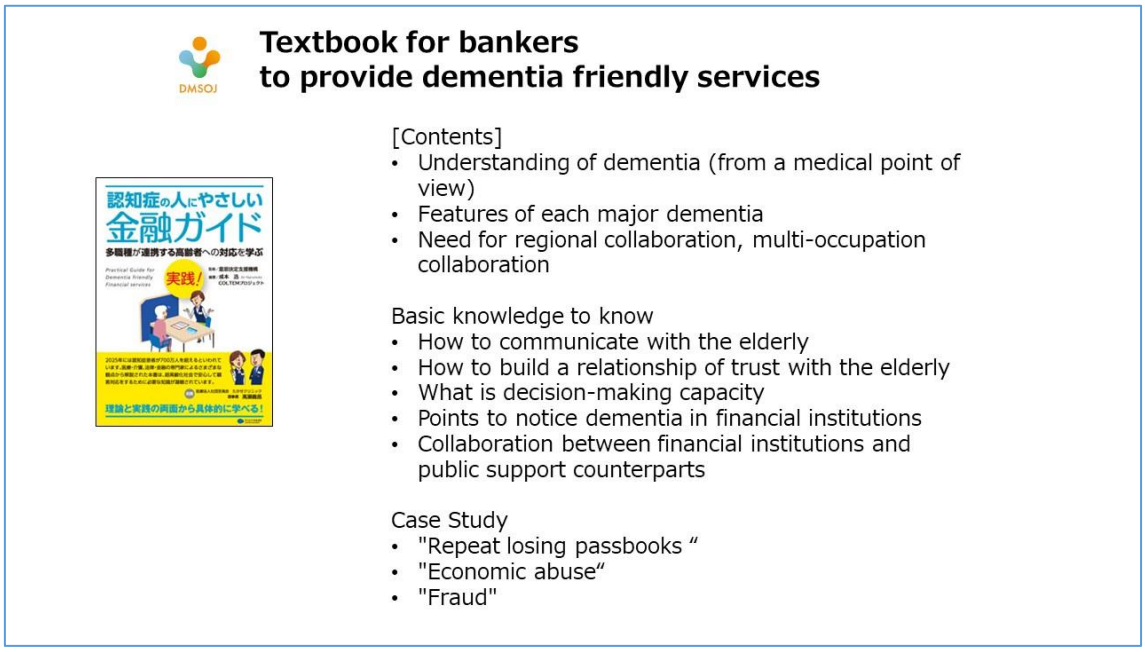
October 13 Panel Discussion

"Special Session on Digital Health"

<Speaker>
Seiichiro Yamamoto: Project Lead for Healthcare Date Policy, Centre for the Fourth Industrial Revolution Japan, World Economic Forum
Jin Narumoto: Professor, Kyoto Prefectural University of Medicine
Susanne Andreae: Head of Health and Healthcare Industry, World Economic Forum
Angela Tyrrell: Senior Vice President, Longevity Leaders
Dan Wang: Head, Johnson & Johnson Innovation, Asia Pacific
A. B. Dey: Professor, Department of Geriatric Medicine, All India Institute of Medical Sciences, New Delhi, INDIA

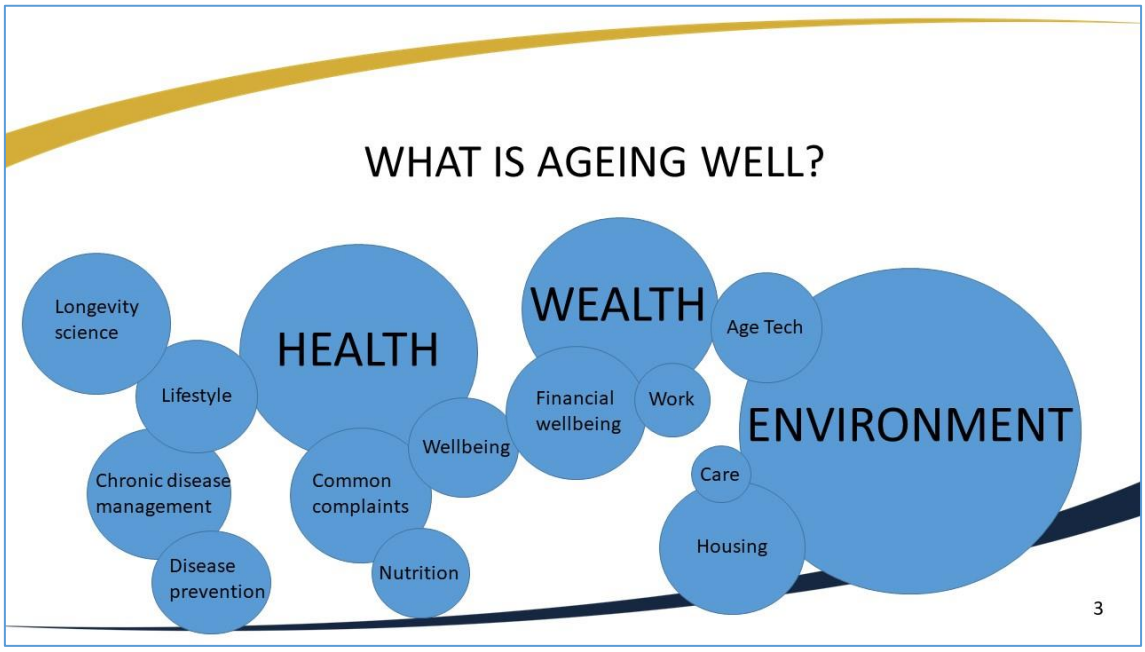
- Each panelist gave a brief presentation about initiatives to solve challenges for creating a dementia-inclusive society.

Jin Narumoto: In Kyoto Prefecture, we launched the Consortium for Dementia-Friendly Cross-Industry Collaboration in a partnership to provide products and services that are friendly to those with dementia or declined cognitive function. Companies face the challenge of stabilizing transactions with those with dementia or declined cognitive function. There is need to train companies to verify the validity of transaction capability and to support decision-making by these individuals. In 2013, we created COLTEM, an interdisciplinary center to support the local lifestyles of the elderly, and began providing decision-making support to dementia patients from 2018. For banks that run the risk of lawsuits, we developed a textbook to share the necessary knowledge for providing services to those with dementia or declined cognitive function. We also offer training courses for financial institutions.

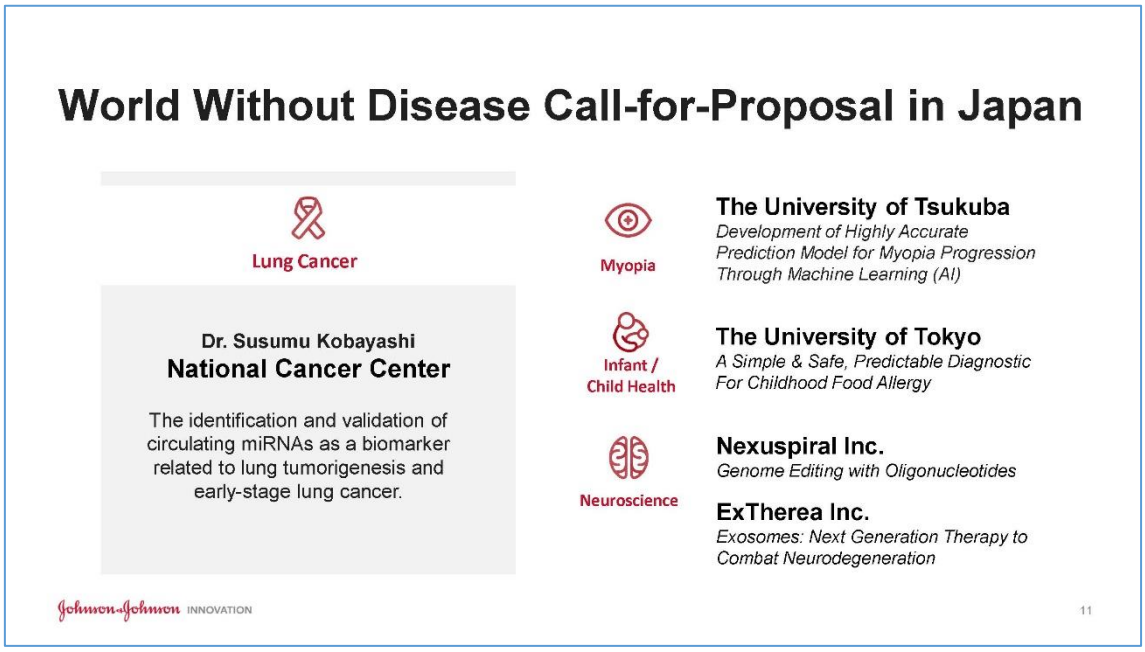


Susanne Andreae: Now that we are in an aging society, the World Economic Forum proclaims three key strategies. With the Davos Alzheimer’s Collaborative that was kicked off in January 2020 and involves governments, private companies, and NGOs, we will accelerate digital transformation and empower reform. Goals are: to increase Alzheimer’s disease targets and the number of biomarkers to establish treatments; to standardize clinical tests for test result clarification; and to upgrade healthcare systems. For Social Determinants of Health, we will research social factors that worsen health, and for Global Future Council on Longevity, we aim to build an interdisciplinary network to share knowledge and promote innovative thinking.

Angela Tyrrell: We promote investment by European companies. Ageing well involves health, wealth, and environmental factors, and new fields are emerging for health and wealth, which we focus on. Longevity science is biological research of the mechanisms of aging and is pioneering new roads for healthcare. In the wellness ecosystem, the importance of nutrition, beauty, mental health, and the like are being recognized. There is an increasing number of new companies, and venture capitalists are also showing interest. Financial wellbeing is very important, but brings many challenges with solutions being explored. Age tech is an attractive market to startups, and businesses targeting the elderly are being newly launched or spun off of conventional businesses for financial management, security, and other.



Dan Wang: As one of the largest healthcare company in the world, we have expanded our network throughout the globe for collaboration. In Japan as well, we partner with three universities and work with a pharmaceutical company in an effort to detect Alzheimer's disease using novel biomarkers. Lung cancer is the leading cause of cancer death in Japan, and is increasing among the elderly. We hope to engage comprehensively with lung cancer patients and develop new solutions in this category. We have created a prize titled "World Without Disease Call-for-Proposal in Japan" to target innovation in five categories: lung cancer, myopia, infant/child health, neuroscience, and longevity. We hope to promote innovation with an inclusive approach and cross-industry partnerships.



A B. Dey: India is also aging, with the average life span being 72 years. Systems and medical security are taking shape; insurance, pensions, and long-term nursing will need to be available to all. There are many non-communicable diseases and an increasing number of frail elderly people. Most are dependent on care from the family, and this has become a social issue. However, there are few aging care experts, and access to nursing facilities is limited. Remote healthcare has not advanced.

The National Digital Health Mission was advocated in 2017, encouraging the use of technology to resolve the issues in India. Health IDs will be assigned to each citizen, and electronic health records as well as electronic medical records will be implemented to modernize healthcare. This has accelerated with the COVID-19 pandemic.

- During the discussion, there were comments that it is extremely important to support decision-making for cases of dementia, and that the cooperation of stakeholders in various fields is crucial to resolving aging society issues.
- It was pointed out that as the people who are developing AI don't have dementia, they may not be able to resolve the needs of people with dementia, and that the COVID-19 pandemic had the positive effect of more private companies entering the health industry not for the sake of profits, but for health of citizens.