

Super Aging Society Where Elderly People Foster Vitality

The aging of society poses a challenge and no nation can escape from it. Japan in particular is exposed to risk as the most rapidly and drastically aging society. How can we maintain our economic vitality? How can we pay for the cost of aging, such as social welfare and pensions, in spite of our government's cumulative fiscal debt? These questions would lead to the ultimate one: "Is an aging society a sustainable society?" By responding to these questions appropriately as the country possibly most seriously affected by this phenomenon, Japan could become a model for other countries and show how an aging society can continue to grow and prosper.

Paying attention to the positive aspects of an aging society, in previous issues we have highlighted the expanded job opportunities for women replacing older men or the opportunities in such fields as medical and healthcare-related businesses. This issue highlights elderly people themselves. Given the progress of medical science, they can enjoy much longer lifespans in good health. Alzheimer's disease is certainly a big challenge for us in thinking about their mental health and is a key to whether they can maintain their vitality and continue to work and contribute to society after their official retirement and more importantly be happy for the remainder of their life.

We start our cover story with an excellent overview of the most serious challenge for our aging society, Alzheimer's disease, its current status and future prospects and possible impact on the economy, written by Anjana Ahuja, a distinguished freelance science journalist who has often contributed articles on science and technology to the *Financial Times*. In particular, please have a look at her chart on the second page of the article, which is very shocking to us.

Alzheimer's Disease International (ADI) is a global NGO working on promoting care and prevention of Alzheimer's disease. Executive Director of ADI Marc Wortmann describes their mission and activities in his article.

Following these two leading articles, we have interviews with three well-known medical experts who have worked on cures and prevention of Alzheimer's disease for many years,

namely Dr. Takeshi Iwatsubo at the University of Tokyo, Dr. Alfred W. Sandrock, Jr. at Biogen, and Dr. Nikolai Petrovsky at Flinders University. They introduce the latest results and outcomes of their research. There are ways to overcome the disease but it will still take a long time to achieve them. In the meantime we can learn about their research and get a rough idea of the stage of progress in medical science on the issue.

Even after a treatment is developed, another challenge could be the price of the drugs for a cure that everyone could afford. Seiji Hasegawa, a distinguished journalist at the *Yomiuri Shimbun*, addresses this issue in his article, suggesting how we can balance promotion of innovation and containment of medical costs.

Not in the near future but in the long term, assuming that all these medical research efforts can mitigate the impact of Alzheimer's disease, we may enter a "Super Aging Society" where aged people can continue to work for many years even after their official retirement age, at 60 or 65 or 70, and enjoy living to the age of 90 or even 100 in good health.

How can we enjoy a life with such a long span and make a good contribution to society? How can we take full advantage of longevity in good health? Some answers to these questions can be found among the following articles.

We were lucky to have an interview with the internationally well-known skier and alpinist Yuichiro Miura, who is 84 years old now and is the oldest climber to have reached the summit of Mt. Everest, and also with the mayor of Mitaka City in the Tokyo suburbs, Keiko Kiyohara, a pioneer in human resources development for elderly people. We can learn from them that growing old need not be so bad.

These two interviews are followed by articles by three innovative Japanese thinkers of the younger generation, Yumiko Murakami, Dr. Asako Takada and Tadashi Waki, on how Japan's aging society could be revitalized and made more resilient by changing mindsets or working styles. This would also contribute to the personal happiness of the elderly. These authors suggest that we can find a way to continue enjoying life as well as our work no matter how old we may be.

COVER STORY 1

Alzheimer's Disease: the Flagship Illness of a Greying World 4

By Anjana Ahuja

In 2050, 131.5 million people worldwide will suffer from dementia. The total estimated worldwide cost of dementia will rise to \$2 trillion by 2030. However, the observed recent decline of the proportion of people with dementia is a glimmer of hope, though effective medicines are still at least a decade away.

COVER STORY 2

Mission & Activities of Alzheimer's Disease International: Towards the Global Plan on Dementia 9

By Marc Wortmann

Alzheimer's Disease International (ADI) aims to make dementia a global health priority through official status with the World Health Organization (WHO). ADI is now promoting a WHO Global Plan committed to raising awareness of dementia, including risk reduction, diagnosis, care and treatment.

COVER STORY 3

Interview with Takeshi Iwatsubo, Professor of the Department of Neuropathology, Graduate School of Medicine, The University of Tokyo

Very Early Treatment of Alzheimer's Disease & Impact of Public-Private Partnership 11

By Japan SPOTLIGHT

Very early treatment would be the most effective way of overcoming Alzheimer's disease. To make it happen, we will need public-private partnerships due to the enormous costs involved.

COVER STORY 4

Interview with Alfred W. Sandrock, Jr., M.D., Ph.D., Executive Vice President & Chief Medical Officer of Biogen

Can the Antibody Aducanumab, an Investigational Treatment, Lead to a Potential Treatment for Alzheimer's Disease? 15

By Japan SPOTLIGHT

The discovery of the antibody aducanumab was made public in *Nature* magazine on Sept. 1, 2016. It is still an investigational treatment, but it has the potential to lead to an effective treatment for Alzheimer's disease.

COVER STORY 5

Interview with Nikolai Petrovsky, Professor of Medicine at Flinders University

Alzheimer's Vaccine Breakthrough 19

By Japan SPOTLIGHT

An expert on vaccines has made a breakthrough discovery of a new potentially effective vaccine against Alzheimer's disease. This is a product of international collaboration in research between academics in Australia and the United States.

COVER STORY 6

Appropriate Drug Prices in an Aging Society — Striking a Balance Between Containing Medical Care Costs & Promoting Innovation 23

By Seiji Hasegawa

In order to strike a balance between promoting innovation and containing medical care costs in Japan, we will need to have a more transparent drug pricing system and develop a framework for reviewing drug prices based upon cost-benefit analysis.

COVER STORY 7

Interview with Yuichiro Miura, a Skier & Alpinist

Elderly People Will Enjoy Life More & Live Longer by Setting a Goal 30

By Japan SPOTLIGHT

His dream to be the oldest person to climb Mt. Everest has enabled famed alpinist Yuichiro Miura to maintain good health and enjoy his life. Sports can create positive thinking among elderly people.

COVER STORY 8

Interview with Keiko Kiyohara, the Mayor of Mitaka City

Elderly Citizens — Invaluable Human Resources for a City's Welfare 34

By Japan SPOTLIGHT

Mitaka City in the suburbs of Tokyo has long been encouraging residents to take part in public services as volunteers. Elderly people are among them. Working for the interests of the local community after retirement can help revitalize the elderly, and enable them to pass on their knowledge and experience.

COVER STORY 9

Turning Demographic Challenge into Economic Opportunity 38

By Yumiko Murakami

The demographic challenge of aging societies can be turned into economic opportunities by raising productivity through innovation. In particular, in Japan the older population has sustained relatively high skill levels both in literacy and numeric ability.

COVER STORY 10

Transforming the Showa Mindset to *Festina Lente* to Survive an Aging Society 42

By Asako Takada

To create a livelier and happier aging society in Japan, the old mindset still dominating Japanese business, such as long-term employment and the company being life itself, must be abandoned and a 21st century mindset should replace it.

COVER STORY 11

Leveraging the Benefits of Longevity in an Age When People Live to 100: Toward a Lifestyle of Continued Work in Health & Happiness 45

By Tadashi Waki

To achieve lifelong happiness in an age when people live to 100 in Japan, we need to identify active and multifaceted lifestyles and ways of using our time to enable a more flexible balance of work, learning and leisure. Individuals, companies and society must innovate their working styles to move in the direction of leveraging the benefits of longevity.

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