

# 2019 JIRA New Year's Reflections

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Warmest greetings for the New Year of 2019.

This year marks the 52<sup>nd</sup> year since the establishment of the Japan Medical Imaging and Radiological Systems Industries Association (JIRA) in 1967.

Six months have passed since I was appointed the new chairman of JIRA in June of last year, and I am struck once again with admiration and respect for the history and achievements of this Association built up by my predecessors, including the previous chairman, the significance and value of the current organization and its activities, and the trust and expectations placed on us through our relationships with other relevant parties.

With the Tokyo Olympics and Paralympics approaching in 2020, and the selection of Osaka as the site for the 2025 World Expo, 2019 will be the perfect opportunity for Japan to show the world how it is resolving social issues to build a brighter future. It is my hope that this will be an opportunity to promote Japan's high quality healthcare and advanced healthcare system to the world, serving as an opportunity for new growth and development of the medical device industry.

With the dramatic change in the demographic composition of Japan, the country will advance from being a society with a declining birthrate and aging population to an aged society, and then a super-aged society, as the social composition of the country changes. Japan has been called a pioneering developed country in addressing issues such as the increase in social security costs and the decline in the working-age population, however, Japan currently needs to urgently dedicate itself to resolving these issues. The government has identified themes such as extension of the healthy lifespan, the 100-year life, and work style reform, implementing reforms in areas such as social security in light of the 2025 issue. Looking further ahead to 2040, when the children of the baby boomers will become elderly, the government is expected to execute more concrete measures. In the health and healthcare area, in addition to the three major diseases (cancer, heart disease, stroke), the early prevention and prevention of exacerbation of lifestyle related diseases and dementia that accompany aging is a must, and the realization of measures for integrated community care and home healthcare will become important. In this context, JIRA is approaching a turning point where it will need to set new goals and undertake them as an industry association.

Looking back, the medical imaging systems industry began with diagnostic imaging devices using X-ray imaging. After constantly facing the needs of the medical field and implementing repeated improvements, the industry grew with the digitalization of images to diagnostic devices such as CTs, MRIs, and diagnostic devices for nuclear medicine, as well as modalities such as radiation therapy devices, and systems such as PACS, developing alongside related products and services. From approximately 10 years ago, the focus has been on promoting healthcare ICT, addressing the key issues such as the standardization of image data (DICOM), turning stand-alone software into medical devices, formulating CAD review / development guidelines, ensuring the use and application of medical information and the accompanying protection of personal information, handling cyber security issues, and recognizing innovation through medical fees.

An area in which high hopes are being placed for the resolution of Japan's social issues going forward is artificial intelligence (AI). Efforts are also underway in the healthcare field in line with the rapid development of AI technologies in recent years to undertake and enhance initiatives involving industry, government, and academia. In a report (published in June 2017) prepared by the Round-Table on Promoting the Utilization of AI in the Healthcare Field (Ministry of Health, Labour and Welfare), the diagnostic imaging area was identified as an area expected to see the relatively early practical application of AI. In this context, measures such as the creation of an image database by relevant associations and clarification of the legal handling of images have been indicated for the promotion of AI development by private enterprises. In addition, at academic conferences related to medical images and medical information in radiation therapy, etc., sessions related to AI are drawing large numbers of participants and playing a central role. In the industry, the respective corporations are feverishly undertaking the development of AI. In particular, technologies that provide diagnostic imaging support that have recently seen a dramatic improvement in performance with deep learning are expected to be applied to medical images in radiology departments and the like, and are expected to contribute to early diagnosis and early treatment as well as minimally invasive medical care alongside the further technical development of modalities and systems, contributing to the extension of the healthy lifespan.

Further, with the application of AI technologies to the improvement of workflow with the semi-automation of diagnostic imaging reports, the management of radiation exposure, and the maintenance and management of devices, it is expected to make a major contribution to increasing the efficiency of the clinical field that will lead to work style reforms, as well as the safety and security of patients and the clinical field.

In order to enhance the ability to respond to changes in the social environment, initiatives to strengthen cyber security and the development and provision of diagnostic imaging devices and systems that can continue to be safely and securely used in the event of a disaster, etc. are also important issues, and from the perspective of international

development and international contribution, international compatibility and conformity to regional regulations is required.

In order to provide technologies and products to the clinical field as quickly as possible in response to these needs, JIRA will not only make proposals for measures and regulations to create the necessary environment in addition to the environment and infrastructure already in place, it will also provide and share useful information with the parties involved.

JIRA activities are based on the “JIRA Vision 2020 (Target Image of the Medical Imaging Systems Industry)” formulated in 2013 as the basic strategy, and action plans are formulated each year. As we work towards the culmination of the vision in 2020, we will be conducting division activities and committee activities with our member companies. Looking ahead to the 2025 issue that is fast approaching, and even further to the changes in the social environment in 2040, I intend to thoroughly consider JIRA’s response to these issues.

Thank you in advance for your continued understanding and cooperation as well as your guidance and support. With warmest wishes for your health and prosperity in the New Year.