

Editor's note

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In addition to global environmental concerns caused by an increased desire for material affluence, contemporary society is faced with many serious problems, such as a population explosion, poverty, and armed conflicts, associated with rapid changes in society, including globalization, and there are growing concerns over the sustainability of the planet and society. Japan is also beset with many serious problems, such as its dependence on imported resources, the declining birthrate, and growing proportion of elderly people, the increase in social security costs, the inequalities in access to healthcare, and the reduction in the number of regional towns and cities.

Moreover, prioritizing efficiency has exposed the contradictions of the loss of “affluence” that the human race has built over many years by coexisting with nature. The technologies adopted by society in the name of efficiency were introduced from a short-term perspective. As such, their long-term and widespread effects could not be predicted, and various “distortions” have gradually built up since the Industrial Revolution, perhaps, resulting in the labyrinthian problems that we have seen in recent years.

In addition to attempting to find intrinsic solutions to problems from a long-term perspective, science has an inherent responsibility to cultivate people with the spirit

and ethics to tackle challenging problems, to create a promising future.

However, it has come to the point where it will be difficult to solve these social challenges through the short-term efforts of individual researchers. Long-term and coordinated efforts are needed to overcome these challenges.

To solve not only these serious problems but also the challenges required to make a better future, academic societies and universities need to launch projects going forward, mobilizing their collective wisdom by making use of the strengths which they have fostered over many years of basic research, and examining each of these problems from a perspective that differs from that of government and business (<http://impact.bureau.tohoku.ac.jp/>). We need to pursue the creation of a “sustainable and spiritually affluent society” by promoting these projects in the long term as individual organizations and in cooperation with other organizations, creating a new sense of values while fundamentally exploring what it means to be human coexisting with nature, and conveying the significance of solving these problems across generational lines. I hope that the field of medical ultrasonics will play an important role in overcoming these challenges.

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