

## Science communicators



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Dr. Shimomura's chemical experiment on the emission of green fluorescence aroused many children and adults' interest in chemistry. One of the charms of chemistry is that reactions at the molecular level astonish us as changes observable by our five senses. Now that children have few opportunities to develop their five senses toward nature, it is necessary to provide such opportunities artificially. Curiosity developed through such opportunities will trigger new scientific and technological innovations for human society. As a means to provide them, "science communicators" can attract our attention.

On the other hand, the popularization of the Internet has created the illusion that experiments can be carried out on the Internet. However, it is merely virtual reality. It is impossible to check on the Internet whether scientific and technological data from such experiments are true and valid. Therefore, science communicators also attract attention as real and reliable exponents for everyone. It is extremely difficult for non-experts to make judgments about bioscience and nanotechnology, both of which are connected with business and are rapidly changing individuals' lives based on state-of-the-art science and technology. It is also difficult for them to make judgments about global environmental problems that cannot be immediately felt by individuals but are sure to influence human society. However, the final judgments as to whether something is right or wrong is left to ordinary individuals. To bridge this gap, researchers themselves need to communicate with the general public. However, as experts, they prefer to use their time and abilities to further develop state-of-the-art science

and technology. The resolution of this contradiction requires science communicators to promote communications between researchers and citizens.

Even if students complete a graduate course in science and engineering, only a limited number of them can become researchers, and all of them are not necessarily suitable as researchers. In addition, to study in interdisciplinary fields, researchers need to understand a wide range of scientific and technological fields and their role in society. In this point also, science communicators can be well utilized as a means to discover new abilities of science and engineering graduate students or help to find career paths for post doctoral researchers. The Third Science and Technology Basic Plan, the government's scientific and technological policy, shows the necessity for fostering science communicators. During the past eight years, the National Museum of Emerging Science and Innovation has trained science communicators through the planning, preparation and explanation of exhibitions that connect society with state-of-the-art technologies. As a nation based on the creativity of science and technology, Japan will be able to lead the world in getting the best from these human resources. This great project for the development of human resources not only will be helpful for scientific education at school and in society, and for scientific and technological business development, but also will directly lead to an increase in the number of young people who will play an active part in Japan's international contributions through science and technology diplomacy.

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