

Preface

For more than a century, questions have been raised about a mismatch in the mass balance that occurs during the growth of plants and animals. However, this mismatch has not received the attention of mainstream academia. The explanation for this question was released when Kervran published a book, “Biological Transmutation” in 1962. In addition, Komaki revealed in the late 1960s that such biological transmutation also occurs in microorganisms.

It is sometimes said that microbes own the earth. The number of microbes in a human body greatly exceeds the number of cells. Some people wonder whether the human body might be considered just a host for microorganisms. In fact, it was microorganisms that allowed life to flourish on this planet. Microorganisms make up the largest proportion of the total weight of organisms on earth.

Human civilization is utterly dependent on energy. The core of the first Industrial Revolution was that mankind secured a power source by inventing steam engines. Today, boiling water technology is advanced, and efficiency is improved, but the basic principle is still the same. Nuclear power used as a heat source for boiling water is considered an ideal energy source in that it does not emit carbon dioxide, which is the main cause of climate change. However, the biggest problem is that radioactive waste is harmful to living organisms. This problem has already been starkly revealed by the Chernobyl and Fukushima nuclear power plant accidents.

When the atomic bombs were dropped on Hiroshima and Nagasaki, scientists who participated in atomic bomb development expected that people would not be able to live in these two cities for the next 100 years. This is what they extrapolated from the results of the Nevada desert atomic bomb test sites. But in just over a year, both cities reverted into an environment where people can live. What happened? The difference lies in the fact that there are almost no microorganisms in the Nevada desert while the two cities had lots of soil microorganisms. Presumably, it was the microorganisms that remediated the environment so quickly. Indeed, microorganisms are very powerful protagonist of the earth. Microorganisms are the strongest living organisms tested to survive intense radioactive radiation so far.

Since 1989, when cold fusion was reported, the results of research in this field can be summarized in two major facts. One is that the output heat energy is larger than the input electrical energy and the other one is that low energy nuclear transmutation is observed. These results appear to violate common sense knowledge that elemental conversion is possible only with high energy accompanied by massive energy generation. Biological transmutation has begun to attract attention again after low energy nuclear transmutation

was reported.

Although the mechanism has yet to be clarified, it may be explained from the perspective of oriental philosophy. The world is composed of yin and yang, and the world moves through the harmonious interaction between yin and yang. When the same properties meet each other, such as yin and yin, or yang and yang, they collide with each other and the energy is negative and destructive. However, if yin and yang meet together, they are in harmony and the energy is soft and creative. In other words, fission is a physical inorganic reaction and fusion is a biological organic reaction. Nuclear fission can be likened to collisions between the same poles, i.e., yin and yin or yang and yang, while nuclear fusion can be likened to the harmony of yin and yang. In this sense, nuclear fusion in a living body may be possible with far less energy compared to nuclear fission. This may give us a hint how biological transmutation is possible with such low energy.

If harmful radioactive elements can be converted into a safe, natural elements by biological transmutation using microorganisms, a permanent solution for treating radioactive waste or contaminated soil can be obtained. Fortunately, experiments have shown that this is possible. This means that active reduction of the intensity of radioactivity may be plausible, rather than just waiting for the intensity of radiation to diminish naturally.

These are the proceedings of the International Conference on the Application of Microorganisms for the Radioactive Waste Treatment held in Busan, South Korea, in May 2018. I hope that the papers published here in the future will be a catalyst for mankind to escape the fear of radioactive waste. Microorganisms are the masters of the earth and have the power to solve any disruption. It just takes time.

Sincerely,

Dr. Sanghi Rhee (Organizer and Chairperson)

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