

# As a researcher engaging in the field of oxidative stress

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The awful earthquake that attacked Northeast part of Japan on 11th March 2011 caused a massive tsunami to surge against the coastal place at Kanto and Tohoku area. Besides, it ran over the serious damage of the Fukushima Daiichi Nuclear Power Plant located at the coastal place of north Kanto area. This serial event is a complex disaster that human beings have never experienced once.<sup>(1)</sup> The continuing leakage of the radioactive materials from the nuclear power plant to circumference environment has greatly drawn public attention as to the harmful effect of radioactive materials to the human health and environment.

It has been reported that radioactive material induces oxidative stress in the body of the living organisms.<sup>(2)</sup> Many researchers are engaged in an effort to investigate the mechanism by which radioactive materials induce active oxygen/free radical species in human body, however, the precise mechanism is yet unidentified so far. The uncertain information makes people feel the sense of fear that is unnecessary, and makes them uncontrollable confusion.

Japan is the only nation upon which atomic weapons have ever been dropped at Hiroshima and Nagasaki.<sup>(3)</sup> Sixty-seven years have passed since then. Although it is negative heritage for humanity, we learned many things by that tragic experience. Based on that knowledge, the urgent action for the prevention against the spread of radioactive materials and the occurrence of

health damage has been taken at a fast pace. As a researcher engaging in an oxidative stress study, now is the time to study radioactive materials, to clarify their effect on living organisms and its underlying mechanism, and to elucidate the method for protection against them more intensively. By doing so, we can stream down correct information, an etiology, prophylaxis, prevention, a treatment, and so on to the people who might suffer from radioactive materials. It is our mission to protect descendants born in the future to us not only we relieve people threatened by danger now. In this issue, Anzai *et al.*<sup>(4)</sup>, an executive Editor of *J Clin Biochem Nutr*, have describe the environmental impact of the Fukushima Daiichi Nuclear Power Plant, the fundamental biological acute and late effects of the radiation, and possible medical countermeasures to radiation exposure. Society for Free Radical Research Japan (SFRR Japan) has a plan to held a special symposium focused on “Free Radicals and Radiation Biology” during the 17<sup>th</sup> biennial meeting for the Society for Free Radical Research International (SFRRRI) 2014 in Kyoto.

Finally we extend our deepest sympathy and condolences to the families of the people who were lost in the big earthquake in east Japan and tsunami and those who have suffered in the disaster and the aftermath. We pray for the earliest possible recovery from this unpredicted tragedy.

## References

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- 4 Anzai K, Ban N, Ozawa T, Tokonami S. Fukushima Daiichi Nuclear Power Plant Accident: facts, environmental contamination, possible biological effects, and countermeasures. *J Clin Biochem Nutr* 2012; **50**: 2–8.

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