

# Kobe University-Ushio Inc. Joint Study Shows Repetitive Irradiation with 222nm UV-C Does Not Cause Skin Cancer

**Cypress, California (April 2020)** — Ushio Inc. (TYO: 6925; headquarters in Tokyo, Japan) and a research group from the Division of Dermatology, Department of Internal Medicine, Graduate School of Medicine, Kobe University (Professor Chikako Nishigori, lecturer Makoto Kunisada, graduate school student Nozomi Yamano, et al.), demonstrated for the first time in the world via animal experimentation that repeated irradiation of 222nm ultraviolet radiation (UV-C) with high disinfection power does not cause skin cancer, suggesting its safety on human skin and eyes. This technology is expected to be utilized in a wide range of antibacterial and viral inactivation applications in the medical field and daily life.

The results of this research were published online in *Photochemistry & Photobiology* on March 29, 2020, and will be presented by Professor Nishigori on June 28 during the 2020 American Society of Photobiology Biennial Meeting in Chicago.

This research study was conducted with the support of the Grants-in-Aid for Scientific Research provided by the Ministry of Education, Culture, Sports, Science and Technology (JP16k10126).

## Highlights

- The research study demonstrated for the first time in the world that repeated irradiation of 222nm ultraviolet radiation (UV-C) does not cause skin cancer when it was applied to mice with extra susceptible skin.

- The results of the research suggest that repeated irradiation of 222nm UV-C is also safe on human skin and eyes.
- The 222nm UV-C lamp unit used in the research included an optical filter to remove nearly all but the dominant 222nm wavelength. Irradiation with this lamp unit caused no onset of skin cancer or cataracts\*1 to the mice used in the research that are very susceptible to UV.
- These results suggest direct irradiation of 222nm germicidal lamps on humans is safe, enabling a wide range of antibacterial and viral inactivation applications is expected in the medical field and daily life.

*View press release pdf for additional details.*

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