

# Special Lecture 2 & 37th Lecture Meeting on Biology and Medicine for Fluid Science

Organizer: Institute of Fluid Science, Tohoku University

Co-Organizer: Health, Welfare and Medical Care Cluster, Institute of Fluid Science,  
Tohoku University

Schedule: Wednesday, December 15, 2021, 15:00~16:00

Distribution Method: Webex

URL: <https://tohokuuniversity-zdb.my.webex.com/tohokuuniversity-zdb.my/j.php?MTID=m754e3fa8ffa51a0e9730f3843be5eaf1>

Meeting ID: 2510 809 6869

Password: h2EpMEgcu74

Lecturer: Yun-Chien Cheng (Associate Professor, National Yang Ming Chiao Tung University, Taiwan (Visiting Associate Professor, Institute of Fluid Science, Tohoku University, Japan))

Lecture Title: Plasma for cosmetic, wound healing, and cancer therapy

Abstract:

This talk includes some novel plasma medical applications. The talk will start from interactions of cells and protein with plasma generated reactive oxygen and nitrogen species (RONS). Then the resulting medical applications, including cosmetic, wound, and cancer therapy will be introduced. My work about plasma tooth bleaching and cancer therapy will also be reported. My works about tooth bleaching was performed by using a helium-based low temperature atmospheric-pressure plasma jet with saline solution to avoid ozone and hydrogen peroxide harm. The bleaching efficacy is even better than conventional hydrogen peroxide method. I also investigated the feasibility of applying plasma activated medium to treat malignant pleural effusion.

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