



Speaker Profile

Speaker **Shin-Ru Shih**

Designation Director/Distinguished Professor
Research Center for Emerging Viral Infections, Chang Gung University, Taiwan.

Title Laboratory Based Research in Response to COVID Pandemic

Abstract This talk discusses viral genetic diversity and its impact on virus stability and antigenicity of SARS-CoV-2 isolates in Taiwan and comparison of their evolutionary trajectories with the global strains. Moreover, a two-variable generalized additive model analysis of binding was developed as a surrogate neutralization test, which is used for evaluation of vaccine efficacy. Regarding antiviral research, we identified ACSL-4 inhibitor as a potent antiviral not only for coronaviruses but also for other RNA viruses by EditCell Virology screening platform.

Biography Shin-Ru Shih got her Bachelors degree in Medical Biotechnology and Masters degree in Biochemistry from National Taiwan University. She did her Ph.D. in Biochemistry and Molecular Biology from Rutgers University, USA. Since 1996, she established a molecular virology laboratory in Chang Gung University and the Research Center for Emerging Viral Infections in 2008. Their study of EV71 began in 1998, when a large EV71 outbreak occurred in Taiwan. Their participation contributed significantly to the laboratory diagnosis of EV71. They subsequently focused on viral-host interactions, in which molecular targets for drug discovery were identified, and series of compounds were developed that inhibit EV71 replication. Dr. Shih was awarded the National Medal for Outstanding Youth in 2004 for contributing to EV71 research in Taiwan.

Research interests

- Studying emerging RNA viruses, including identification of unknown viruses using novel biotechnologies, mechanisms of pathogenesis and development of antiviral compounds.
- Influenza virus research; molecular surveillance of Taiwanese strains, mechanistic study of host-restriction of influenza virus infection, pathogenesis study and development of anti-flu agents.

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