

Vaccines, Clinical Trials & B2B

&

11th International Conference on

Virology and Microbiology

July 27-28, 2018 | Vancouver, Canada

Development of hepatitis B virus large surface protein pre-S2 mutant ELISA assay for predicting hepatoma risk in chronic carriers

Wenya Huang

National Cheng Kung University, Taiwan

Chronic hepatitis B virus infection is a major cause of HCC worldwide. Long-term monitoring of high-risk markers in chronic HBV carriers is important to identify the ones that need frequent follow-up or uptake prophylactic therapies. Though up to now the methods (e.g. ultrasound) and tumor markers (e.g. alpha-fetal protein) to diagnose HCC has been established, the high-risk markers for HCC incidence and recurrence have not been fully identified, given that HCC tumorigenesis is a complex process regulated by various crosstalks between host and viral factors. The pre-S2 deletion mutant large HBS (LHBS), isolated from the type 2 ground glass hepatocyte, has been found highly associated with HCC. To detect the pre-S deletion in LHBS, we developed a pre-S Gene Chip, which detects the pre-S deletion based on DNA hybridization of the HBS genes in patients to the DNA probes on the chip. We have also recently pursued to develop the ELISA system and sought its clinical application to test the pre-S2 mutant LHBS in clinical serum samples. The performances of the detection systems in clinical specimens have been validated. The products of monoclonal antibodies and respective ELISA systems, as well as Pre-S Gene Chip, have gained the US and Taiwan patent approval. Using these detection methods, we have identified the pre-S2 mutant LHBS as a predictive marker for HCC recurrence after the receiving hepatectomy surgeries.

Biography

Wenya Huang has completed her PhD from Wayne State University and postdoctoral studies from University of Texas Southwestern Medical Center. She is full professor in Medical Laboratory Science & Biotechnology in National Cheng Kung University in Taiwan. She has published more than 50 papers in reputed journals and has been serving as an editorial board member of repute.

whuang@mail.ncku.edu.tw

Notes: