Hepatitis B and C viruses are two major agents associated with chronic hepatitis, liver cirrhosis and hepatocellular carcinoma worldwide, including local area in Taiwan. Dr. Young's research group put efforts to investigate hepatic pathogenesis from virological aspect and host environment. To better understand molecular mechanism of viral pathogenesis, the study group adopted cell-based and patient-based systems to address the problems associated with hepatitis virus infection and disease. The research interests include i) characterization of lipo-viro particles of hepatitis C viruses, ii) lipid homeostasis in hepatitis B and C infections and disease progress with cell-based/patient-based approaches, iii) covariance network and functional study of variant viruses, iv) molecular diagnosis of non-culturable viruses. Dr. Young is in charge of joint research program with biotechnological company in development of diagnostic kits and POCT devices.