Ahmed El-Shamy, PhD

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Dr. Ahmed El-Shamy is an assistant professor of Virology at California Northstate University. In 2009, Dr. El-Shamy received a PhD in Molecular Virology from Kobe University, Japan. His PhD study was selected as the Medical School Excellent Paper for the 2008-2009 Academic Year. In 2011, Dr. El-Shamy joined Division of Liver Diseases at Mount Sinai School of Medicine, New York as a senior post-doctoral fellow. Dr. El-Shamy received 2014 Japan Society for the Promotion of Science (JSPS) Award; and 2013 Encouragement State Prize in Medical Sciences from the Academy of Scientific Research and Technology, Egypt. Dr. El-Shamy published 26 publications in high impact peer-viewed journal (**https://www.ncbi.nlm.nih.gov/pubmed/?term=Ahmed+El-Shamy**). Dr. El-Shamy is the lead author in 10 publications; three of them have been published in the highest journals of liver field (two in Hepatology and one in Journal of Hepatology).

Research Interest: Dr. El-Shamy's research focuses on investigating the molecular biology underlying the intra- and extra-hepatic pathogenesis of viral hepatitis, including:

1. Identifying novel Direct Acting Anti-viral molecule against Hepatitis B Virus (HBV), with special focus on eliminating HBV-cccDNA.
2. Investigating the molecular mechanism underlying the clinical correlation between HBx mutations of HBV and development of liver cancer.
3. Investigating the molecular mechanism underlying the dysregulation of lipid metabolism after successful cure of Hepatitis C Virus (HCV) by direct acting antiviral therapy (DAA).
4. Investigating the correlation between HCV infection and B cells disorders, such as Type II Cryoglobulinemia

Course Taught: Advance Topics in Virology

Selected publications (From 26 papers; https://www.ncbi.nlm.nih.gov/pubmed/?term=Ahmed+El-Shamy):

1. Eng FJ, El-Shamy A, Doyle EH, Klepper AL, Muerhoff S, Branch AD. Newly-discovered Hepatitis C Virus Minicores Circulate in Human Blood. Hepatology Communications. 2017 Nov 12;2(1):21-28.
2. El-Shamy A, Pendleton M, Eng F, Doyle E, Bashir A and Branch A. Impact of HCV core gene quasispecies on hepatocellular carcinoma risk among HALT-C trial patients. Scientific Reports. 2016; 6:27025. doi: 10.1038/srep27025.
3. El-Shamy A, Eng FJ, Doyle EH, Klepper AL, Sun X, Sangiovanni A, Iavarone M, Colombo M, Schwartz RE, Hoshida Y, Branch AD. A cell culture system for distinguishing hepatitis C viruses with and without liver cancer-related mutations in the viral core gene. J Hepatol. 2015 Dec;63(6):1323-33.
4. El-Shamy A, Hotta H. Impact of hepatitis C virus heterogeneity on interferon sensitivity: an overview. World J Gastroenterol. 2014 Jun 28;20(24):7555-69.
5. El-Shamy A, Shindo M, Shoji I, Deng L, Okuno T, Hotta H. Polymorphisms of the core, NS3, and NS5A proteins of hepatitis C virus genotype 1b associate with development of hepatocellular carcinoma. Hepatology. 2013 Aug;58(2):555-63.
6. El-Shamy A, Shoji I, El-Akel W, Bilasy SE, Deng L, El-Raziky M, Jiang DP, Esmat G, Hotta H. NS5A sequence heterogeneity of hepatitis C virus genotype 4a predicts clinical outcome of pegylated-interferon-ribavirin therapy in Egyptian patients. J Clin Microbiol. 2012 Dec;50(12):3886-92.
7. Kim SR, El-Shamy A, Imoto S, Kim KI, Ide YH, Deng L, Shoji I, Tanaka Y, Hasegawa Y, Ota M, Hotta H. Prediction of response to pegylated interferon/ribavirin combination therapy for chronic hepatitis C genotype 1b and high viral load. J Gastroenterol. 2012 Oct;47(10):1143-51.
8. El-Shamy A, Shoji I, Kim SR, Ide Y, Imoto S, Deng L, Yoon S, Fujisawa T, Tani S, Yano Y, Seo Y, Azuma T, Hotta H. Sequence heterogeneity in NS5A of hepatitis C virus genotypes 2a and 2b and clinical outcome of pegylated-interferon/ribavirin therapy. PLoS One. 2012;7(2):e30513.
9. El-Shamy A, Kim SR, Ide YH, Sasase N, Imoto S, Deng L, Shoji I, Hotta H. Polymorphisms of hepatitis C virus non-structural protein 5A and core protein

and clinical outcome of pegylated interferon/ribavirin combination therapy. Intervirology. 2012;55(1):1-11.

10. El-Shamy A, Nagano-Fujii M, Sasase N, Imoto S, Kim SR, Hotta H. Sequence variation in hepatitis C virus nonstructural protein 5A predicts clinical outcome of pegylated interferon/ribavirin combination therapy. Hepatology. 2008 Jul;48(1):38-47.

11. El-Shamy A, Sasayama M, Nagano-Fujii M, Sasase N, Imoto S, Kim SR, Hotta H. Prediction of efficient virological response to pegylated interferon/ribavirin combination therapy by NS5A sequences of hepatitis C virus and anti-NS5A antibodies in pre-treatment sera. Microbiol Immunol. 2007;51(4):471-82.