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Chemo-immunotherapy for Colorectal Cancer and Liver Metastasis

Leaf Huang, Ph.D. is the Fred Eshelman Distinguished Professor, Division of Pharmacoengineering and Molecular Pharmaceutics in the Eshelman School of Pharmacy, University of North Carolina at Chapel Hill. Dr. Huang's research has been in gene therapy and targeted drug delivery. He has pioneered the liposome non-viral vector and has designed and manufactured the cationic lipid vector for the first non-viral clinical trial in 1992. His current work centers on nanoparticle vectors for gene transfer in tumor and liver. He also continues research in establishing a ligand targeted delivery system for cDNA, mRNA, siRNA, proteins and peptides for remodeling the tumor microenvironment, leading to tumor growth inhibition. He has authored or co-authored more than 600 papers with an H-index of 126. He is also the inventor or co-inventor of 22 US and foreign patents. In 2004, he received the Alec D. Bangham MD FRS Achievement Award, which is the highest honor in liposome research. He was the recipient of the 2013 Distinguished Pharmaceutical Scientist Award which is the highest scientific recognition of the American Association of Pharmaceutical Scientists. He was named a Highly Cited Researcher in "Pharmacology & Toxicology" since 2016. Dr. Huang has also co-founded 6 biotech start-ups in the past.

Abstract: Colorectal cancer accounts for about 10% of cancer death. Most of the CRC are resistant to checkpoint inhibitor therapy. We have used nanotechnology to deliver drugs and genes to remodel the tumor microenvironment to facilitate immunotherapy for the primary tumor and the liver metastasis. Several different strategies will be discussed in the talk. The work is supported by NIH grant CA198999.