A SYSTEMS APPROACH FOR CAR T CELL THERAPY PRODUCT CHARACTERIZATION

Sadik H. Kassim, Novartis Pharmaceuticals sadik.kassim@novartis.com

Key Words: systems based approach, CAR-T, safety, efficacy

In general, there are three principle parameters by which investigators assess CAR-Ts in the clinical setting: clinical outcome, CAR-T cell persistence, and patient safety. CAR-Ts are "living drugs"; short of clinical trials, it is currently not possible to assess CAR-T safety and efficacy based on *in vitro* taxonomies of cell phenotype and function. This talk will discuss systems wide analytical strategies that may enable for the more comprehensive and precise characterization of CAR-T products with an overall objective of developing safer and more effective therapies for patients.