**A SYSTEMS APPROACH FOR CAR T CELL THERAPY PRODUCT CHARACTERIZATION**

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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.