Ardith W El-Kareh and Leslie B Jones\* (ljones@math.arizona.edu), 101 A Henry Circle, Ft. Huachuca, AZ 85613, and Timothy W Secomb. Additive damage model for anti-cancer drug combinations.

Mathematical models for cellular pharmacology of anticancer drugs used in combination provide information which can be used for the optimization and individualization of therapy, the development of criteria for synergy and antagonism, and the assessment of different possible choices of dose and schedule for drug administration. We present the additive damage model which incorporates mechanistic information about drug uptake and action. (Received August 18, 2009)