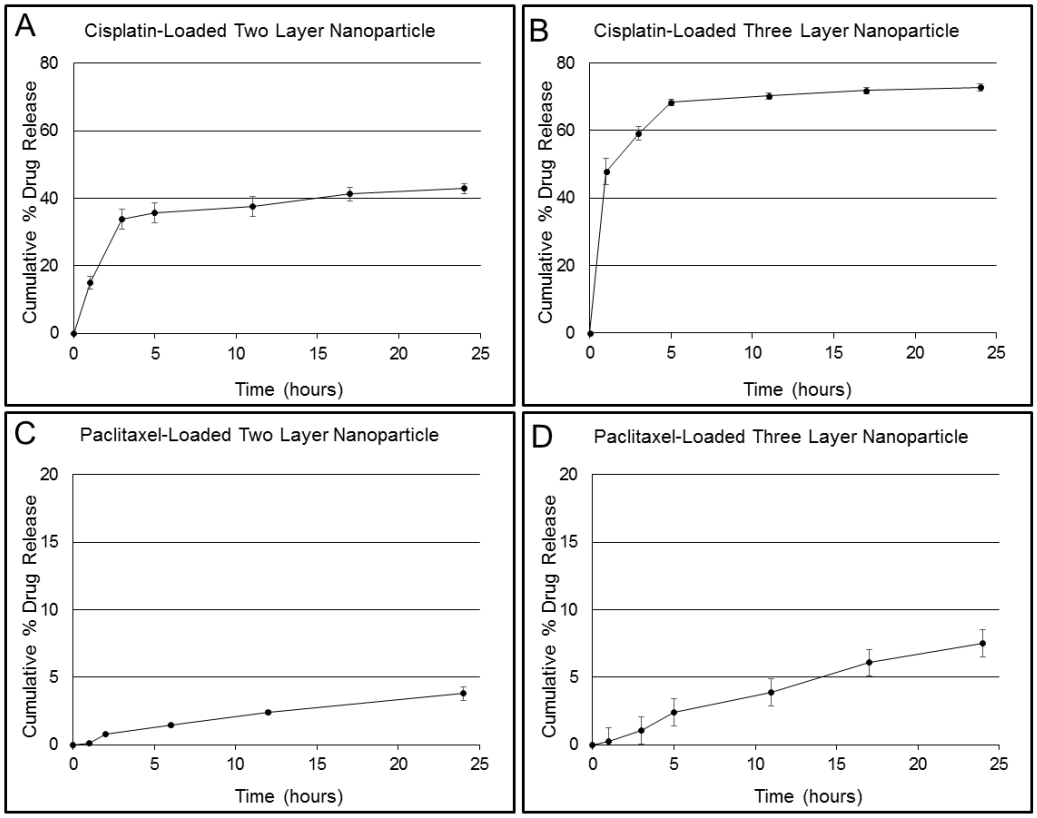
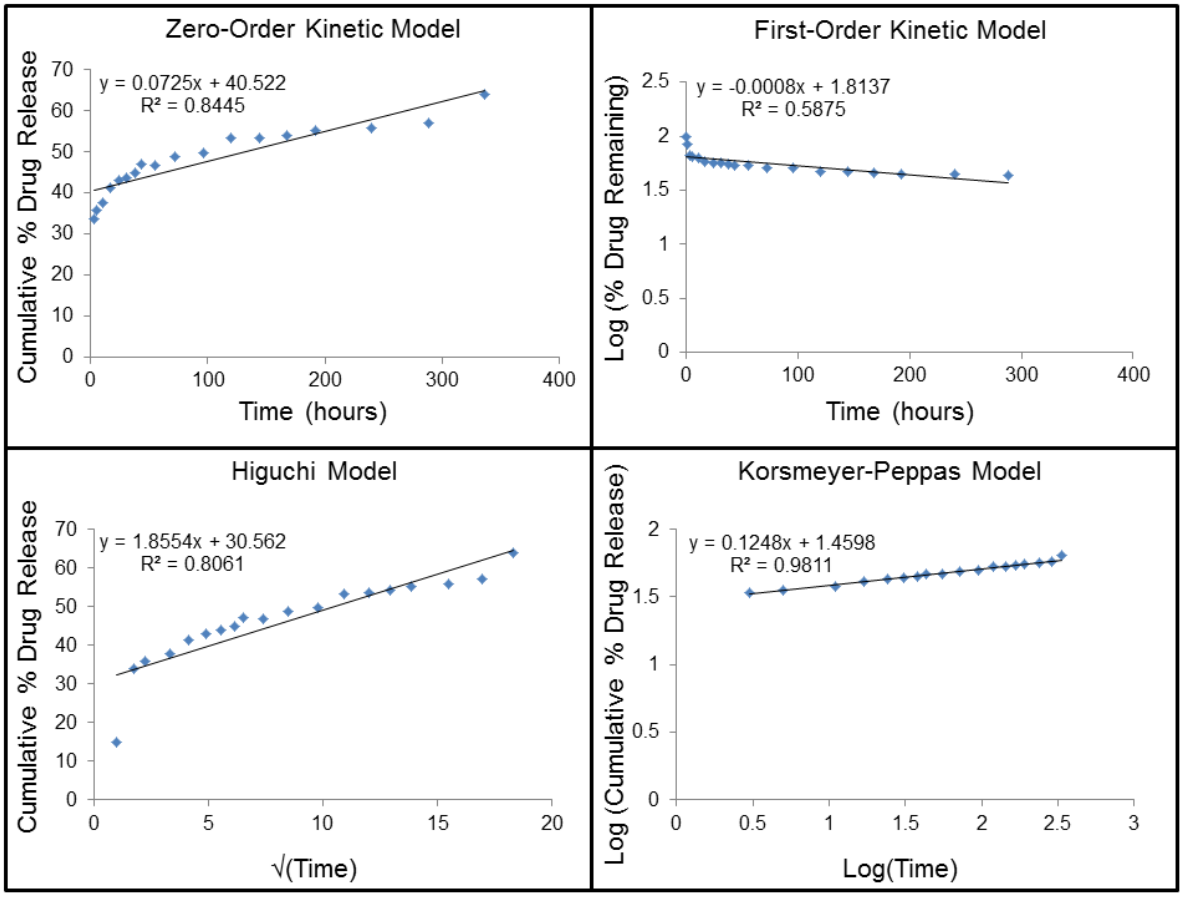
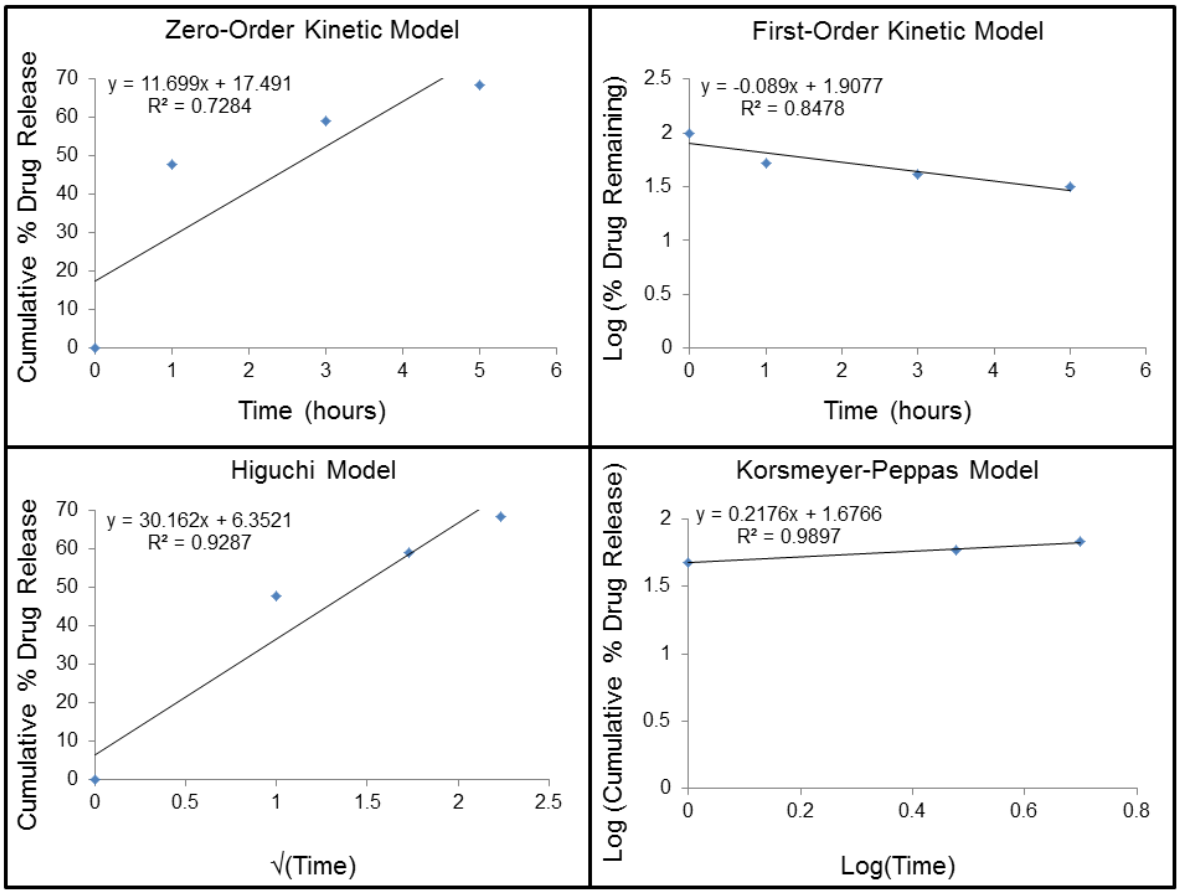
SUPPLEMENTAL INFORMATION



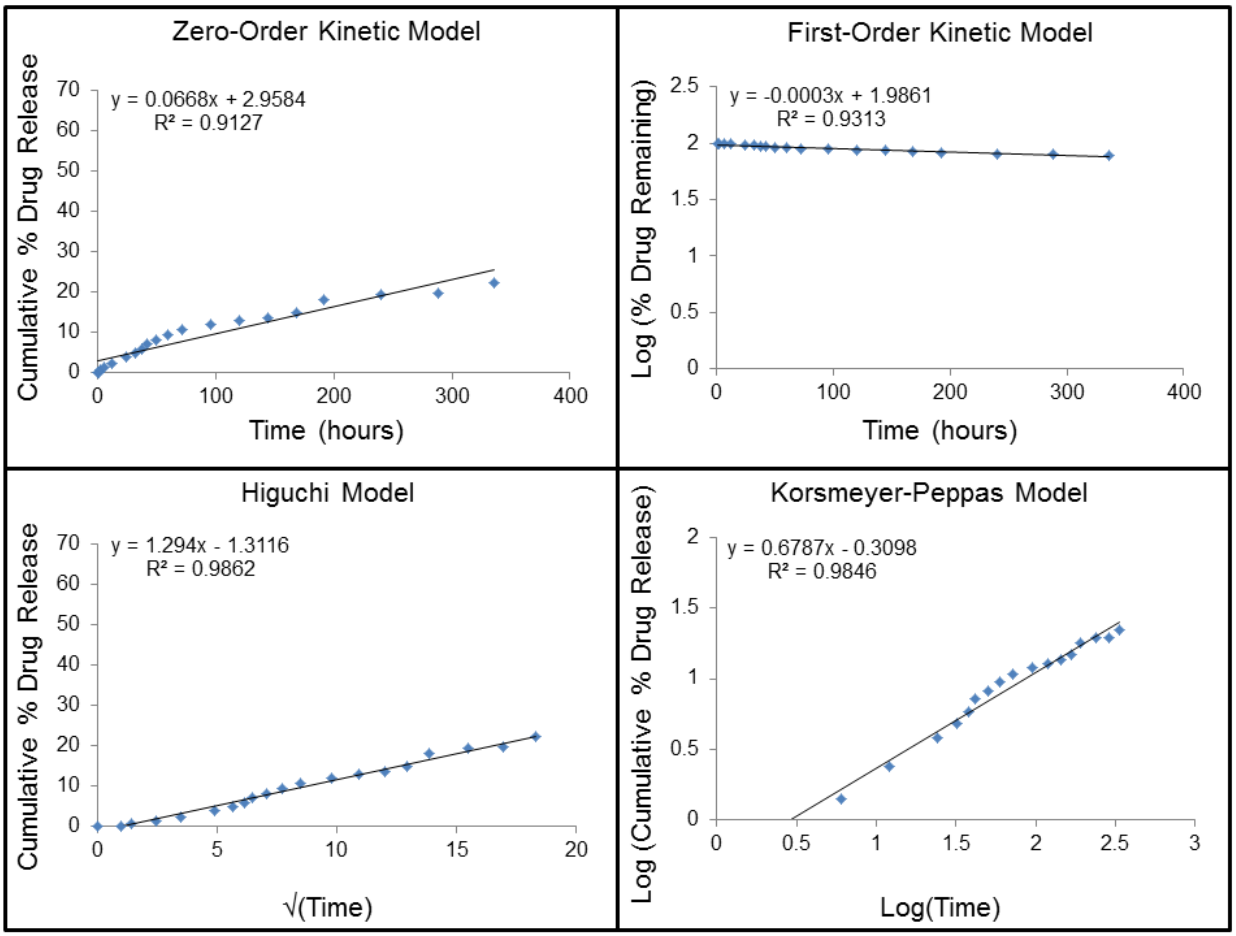
Supplemental Figure 1: Hydrophilic and hydrophobic drug release from gold nanoparticles during the first 24 hours. (A) Cisplatin-loaded two layer gold nanoparticles displayed an initial burst of 35.7 ± 2.3% during the first 5 hours followed by a steady release. (B) Cisplatin-loaded three layer gold nanoparticles showed an initial burst of 68.4 ± 1.0% of drug being released during the first 5 hours, after which a steady release followed. Paclitaxel-loaded (C) two and (D) three layer gold nanoparticles displayed no initial burst during the first 24 hours, with only 3.8 ± 0.1% of drug being released from the two layer gold nanoparticles and 7.5 ± 1.0% released from the three layer formulation by 24 hours.



Supplemental Figure 2: Cisplatin release from two layer gold nanoparticles (points, representing average values) fitted to kinetic models (lines): zero-order kinetic model by plotting cumulative % drug release vs. time, first-order kinetic model by plotting log of % drug remaining vs. time, simplified Higuchi model by plotting cumulative % drug release vs. root time, and Korsmeyer-Peppas model by plotting log cumulative % drug release vs. log time. Drug release correlated best with the Korsmeyer-Peppas model (R^2 >0.98).



Supplemental Figure 3: Cisplatin release from three layer gold nanoparticles (points, representing average values) fitted to kinetic models (lines): zero-order kinetic model by plotting cumulative % drug release vs. time, first-order kinetic model by plotting log of % drug remaining vs. time, simplified Higuchi model by plotting cumulative % drug release vs. root time, and Korsmeyer-Peppas model by plotting log cumulative % drug release vs. log time. Drug release correlated best with the Korsmeyer-Peppas model ($R^2 > 0.98$). Note that since >60% of loaded drug was released within the first 6 hours, fewer points were used for the model fitting.



Supplemental Figure 4: Paclitaxel release from two layer gold nanoparticles (points, representing average values) fitted to kinetic models (lines): zero-order kinetic model by plotting cumulative % drug release vs. time, first-order kinetic model by plotting log of % drug remaining vs. time, simplified Higuchi model by plotting cumulative % drug release vs. root time, and Korsmeyer-Peppas model by plotting log cumulative % drug release vs. log time. Release correlated well with the zero-order kinetic and Korsmeyer-Peppas models, both with R^2 > 0.98.