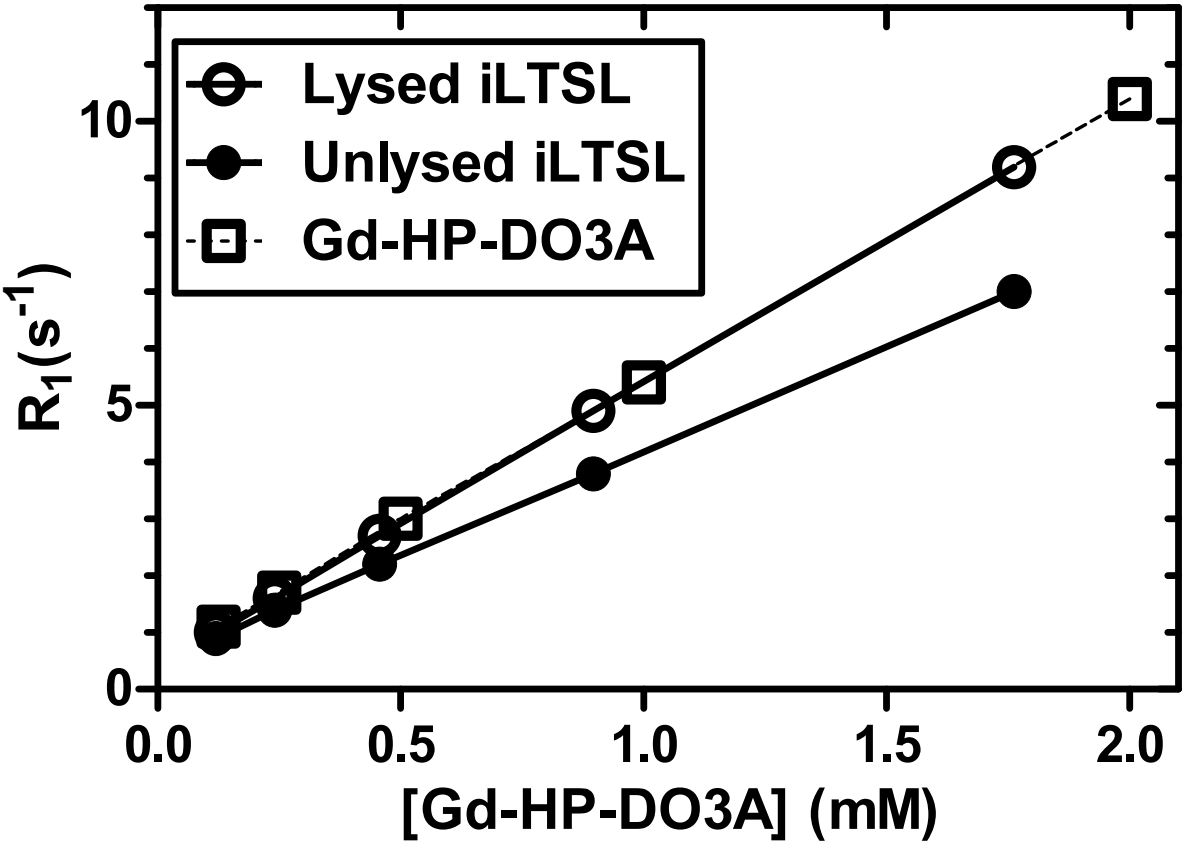
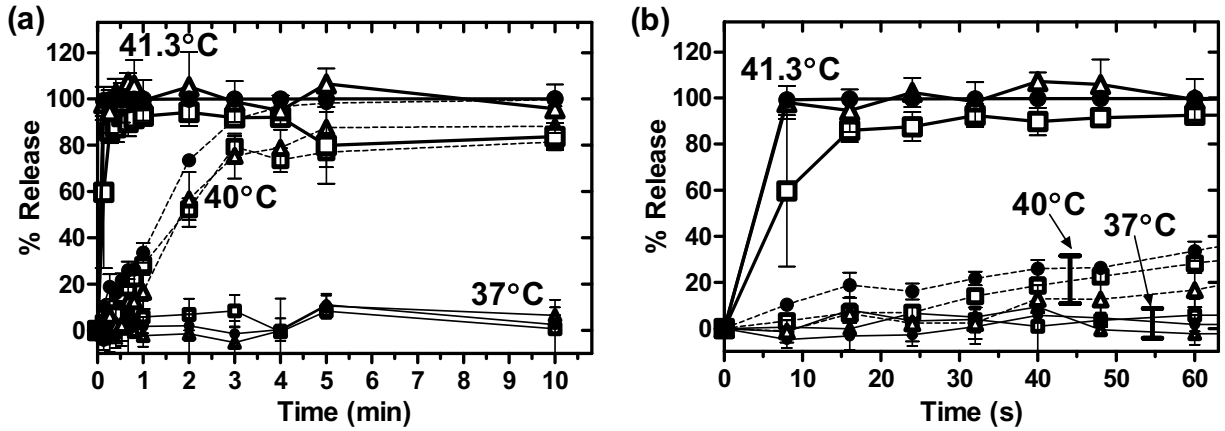
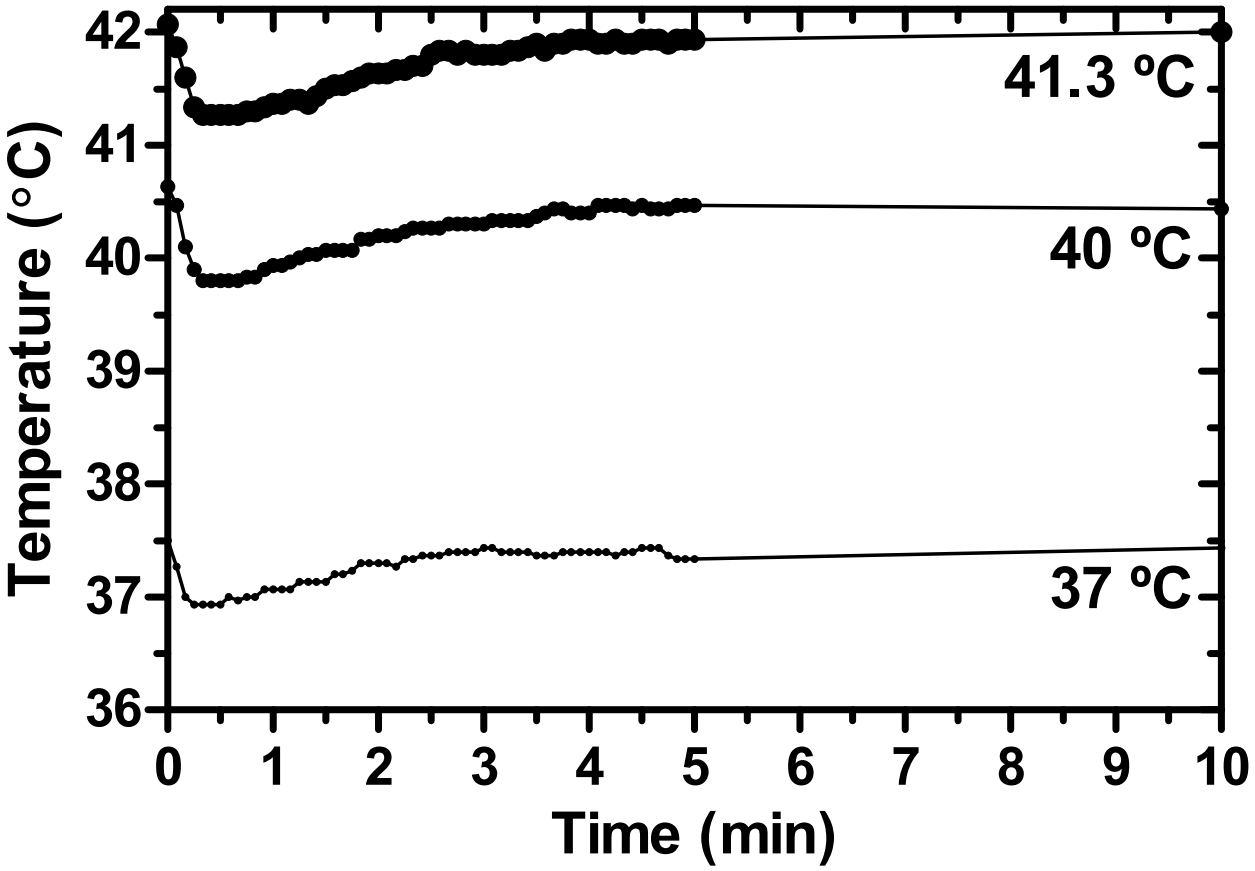
Supplemental Figures



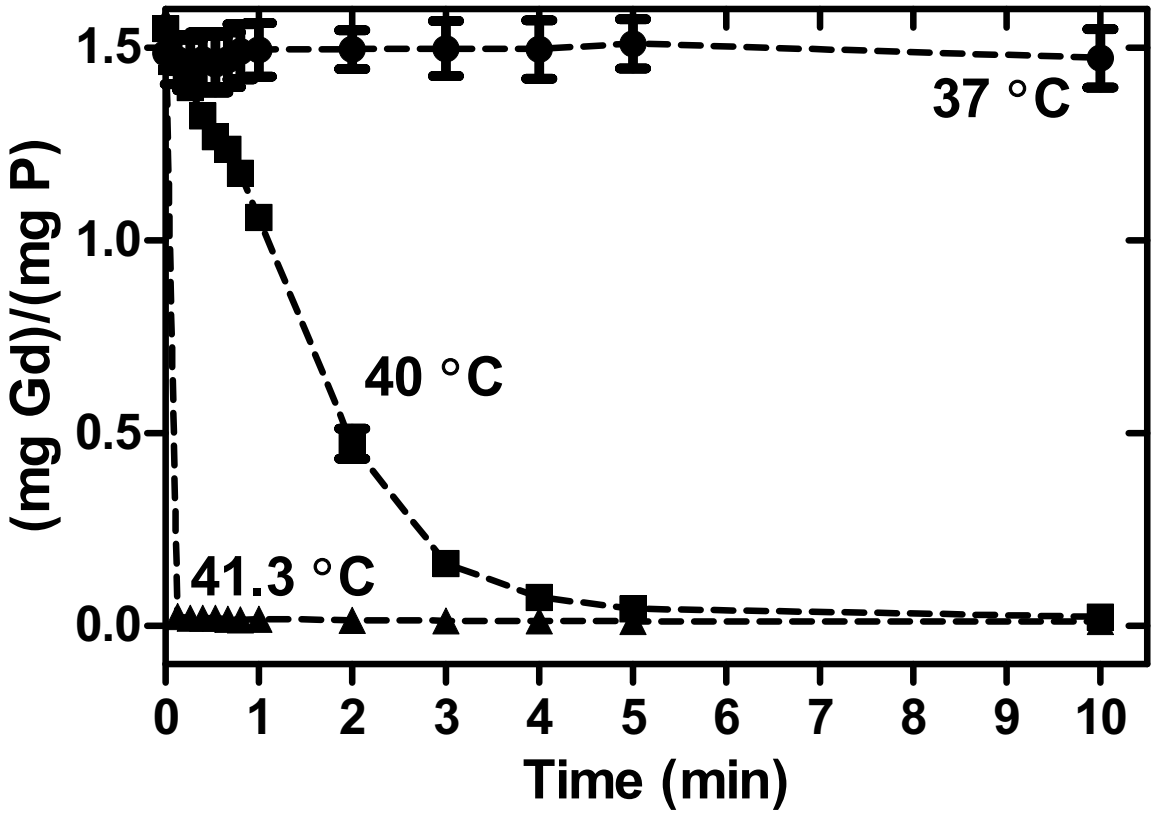
Supplemental Figure 1. Calibration of R_1 vs. concentration of Gd-HP-DO3A at 0.5T. Triton X-100 was added to lyse iLTSL, releasing Gd-HP-DO3A and the drug. The resulting relaxivity (slope) values for lysed and intact iLTSL were 4.994±0.010 and 3.70±0.02 $mM^{-1}s^{-1}$, respectively, and were significantly different ($p<0.0001$, F test). Relaxivity of Gd-HP-DO3A (4.96±0.02 $mM^{-1}s^{-1}$) was not significantly different from that of lysed iLTSL ($p=0.19$, F test). $R^2>0.9999$ for all fitted data.



Supplemental Figure 2. Percent release of Gd-HP-DO3A at 37, 40 and 41.3 ºC. a) Release over 10 minutes. b) Release over first minute of heating. The methods used to approximate % Gd-HP-DO3A release were T_1 measurements before (method 1, □) and after (method 2, △) passing aliquots through two size exclusion chromatography columns, as well as concentration measurements with ICP-AES (method 3, ●). Symbol size indicates temperature: 37 ºC is smallest and 41.3 ºC is largest. Maximum mean difference from ICP-AES measurements is 7±2% for □ and 9±4% for △. Percent release magnitudes were not statistically different between ICP-AES and the other two methods of measurements ($p>0.05$, Dunn's multiple comparison). Each point represents the mean of 3 experiments ± SEM.



Supplemental Figure 3. Temperature during release assay at 37, 40 and 41.3 ºC in which both doxorubicin and Gd-HP-DO3A release were quantified (corresponding to Figure 2). The initial decrease in temperature is due to the addition of concentrated liposomal solution to the pre-heated HEPES buffer. The temperature of each release assay (shown on the right) was the target minimum temperature reached.



Supplemental Figure 4. Gd/P weight ratio as a function of time, as determined by ICP-AES at three temperatures, after released Gd-HP-DOA3 was removed with size exclusion chromatography (n=3).