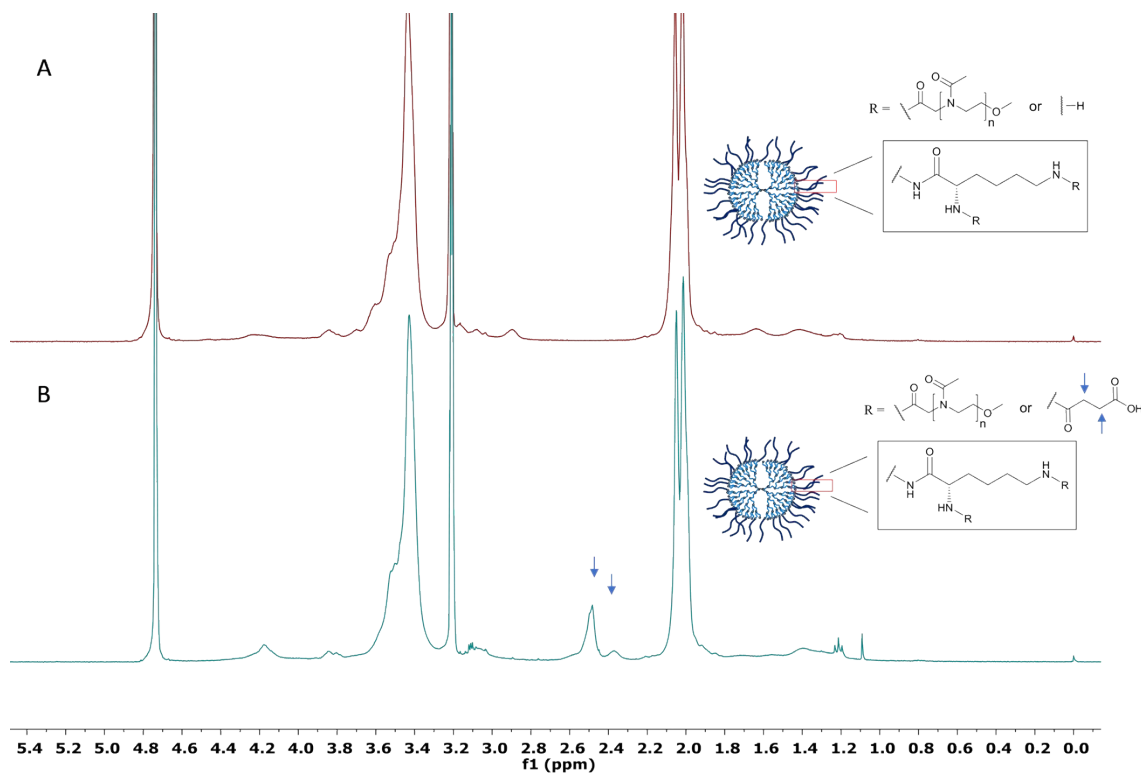


Supporting Information

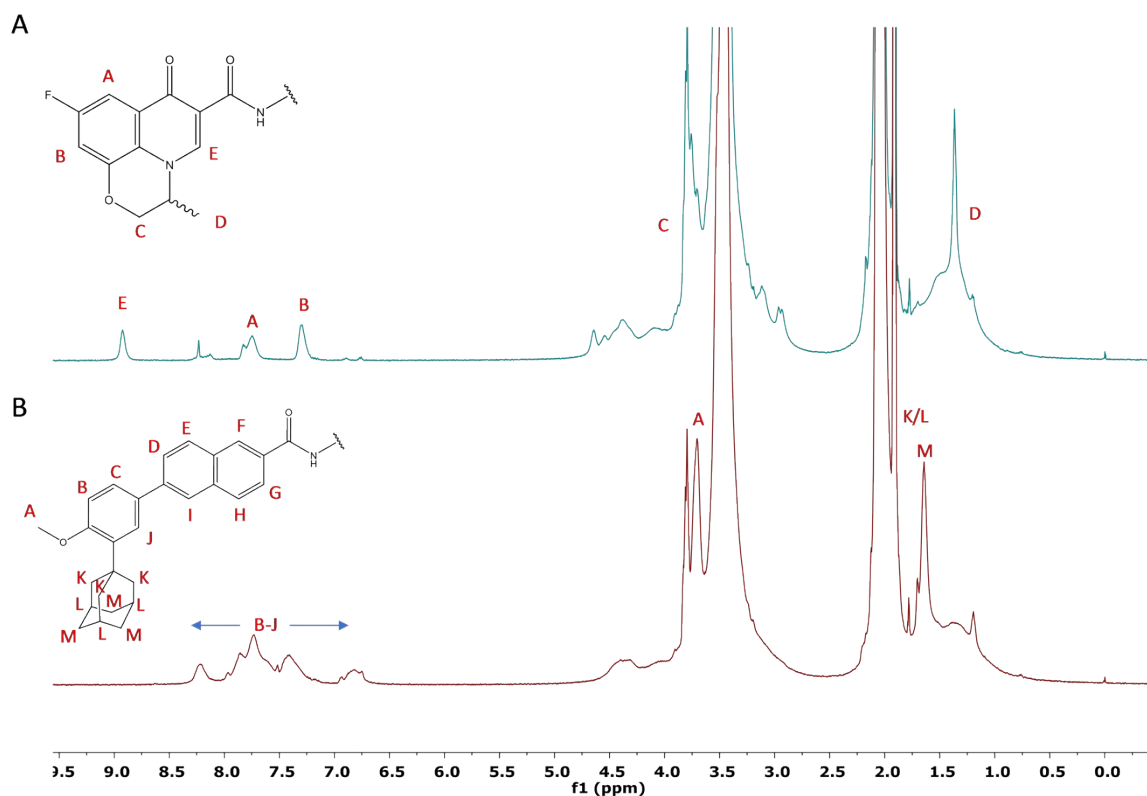
Evaluating liver uptake and distribution of different poly(2-methyl-2-oxazoline) modified lysine dendrimers following intravenous administration

Richard M. England,^a Jennifer I. Moss,^b Kathryn J. Hill,^c Kjetil Elvevold,^d Bård Smedsrød,^{d,e}

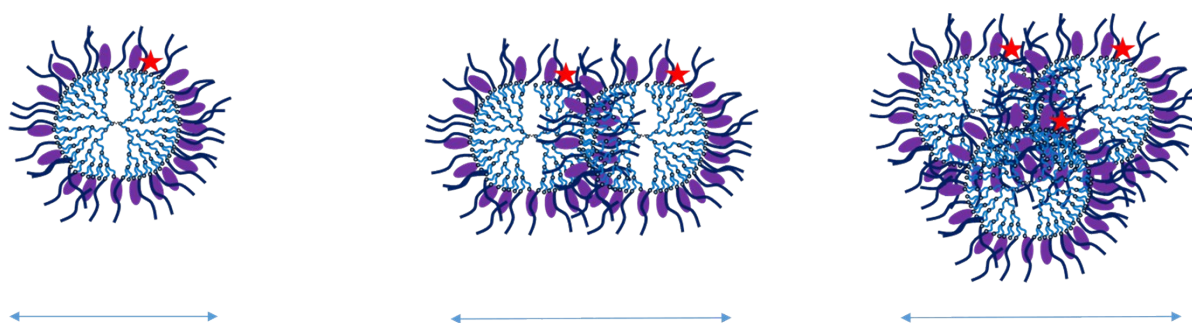
Marianne B. Ashford^f



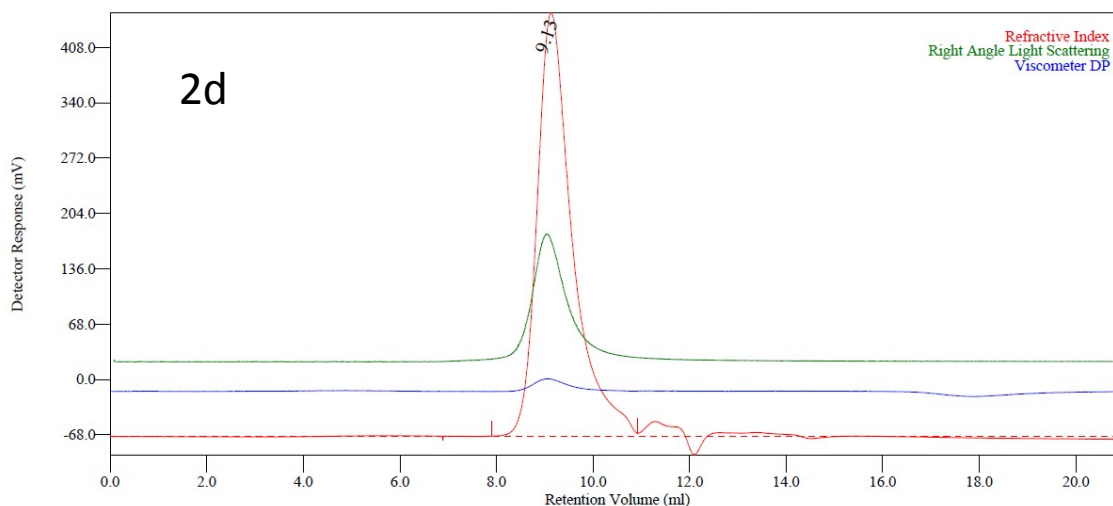
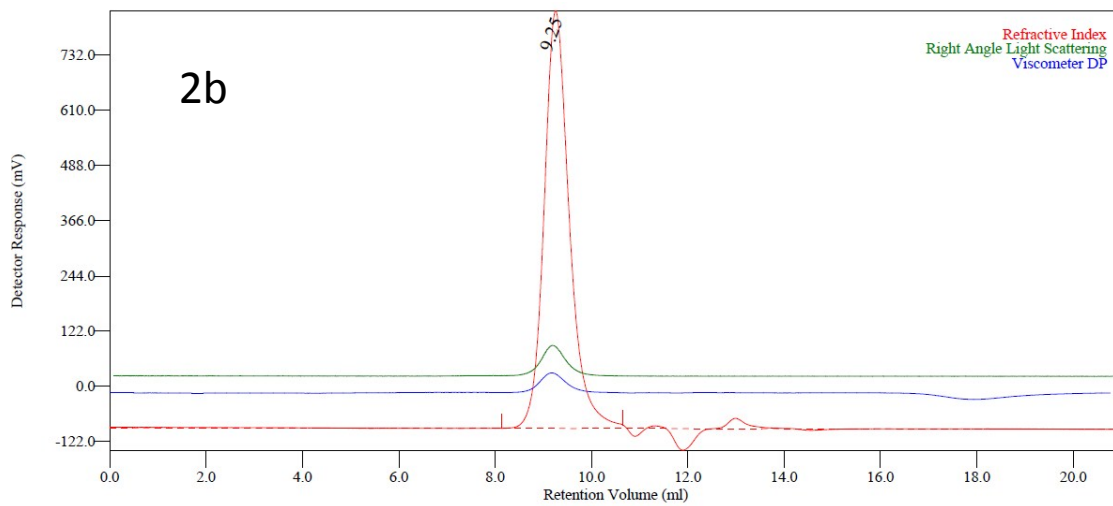
SI Figure 1. ¹H NMR (500MHz, d₄-MeOD) showing PMOx modified G5 L-lysine dendrimer with A) unmodified amino groups and B) modified with succinic anhydride (rhodamine B labelled).



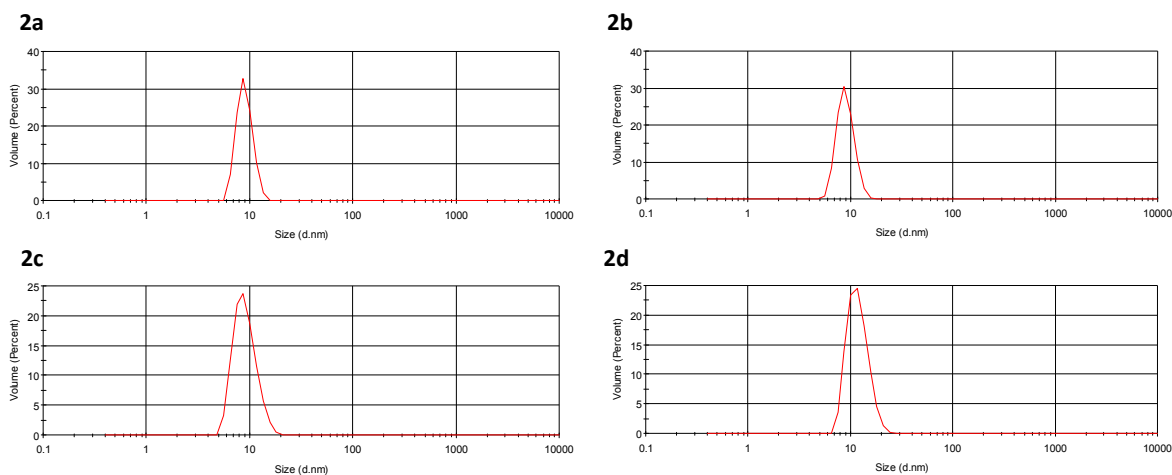
SI Figure 2. ¹H NMR (500MHz, d4-acetic acid) showing PMOx modified G5 L-lysine dendrimer with identification of model compounds conjugated A) Flumequine B) Adapalene (both rhodamine B labelled)



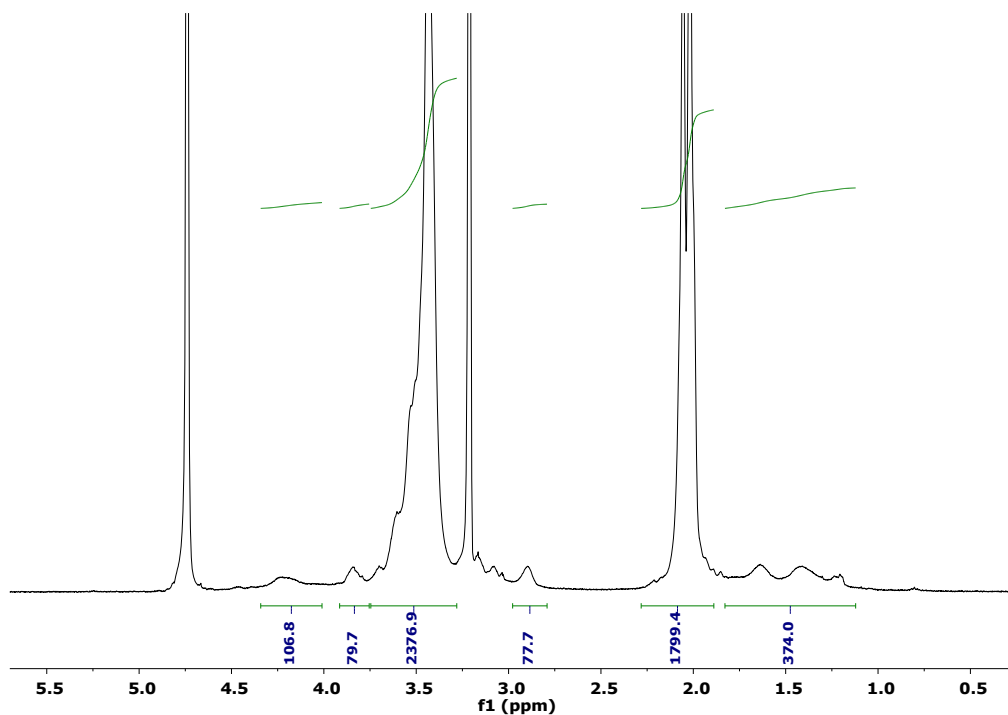
SI Figure 3. Proposed representations of aggregation in solution of the adapalene conjugated PMOx modified dendrimer. Dimers, trimers and further higher order species are highly compact leading to high molecular weights but similar hydrodynamic diameters.



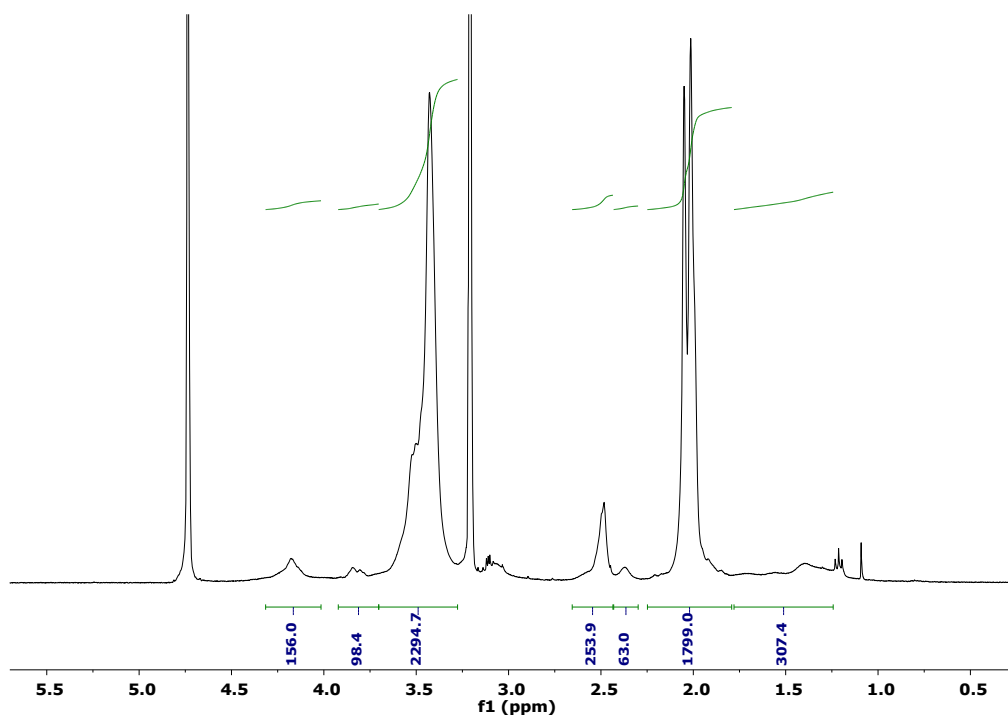
SI Figure 4. SEC-TDA chromatograms (1 x TSKgel GMPWxl, 40:10mM NaNO₃: NaH₂PO₄) for carboxyl functional dendrimer **2b** and adapalene conjugated dendrimer **2d**.



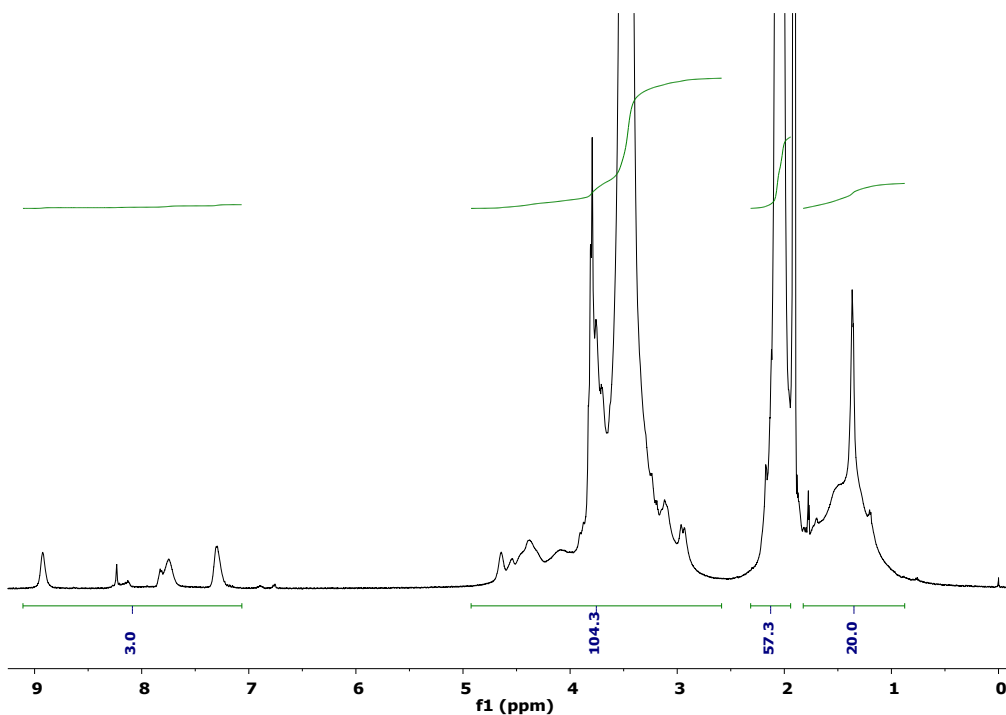
SI Figure 5. Dynamic Light Scattering spectra (size distribution by volume, phosphate buffered saline, 5mg/ml) for all conjugates **2a-d**.



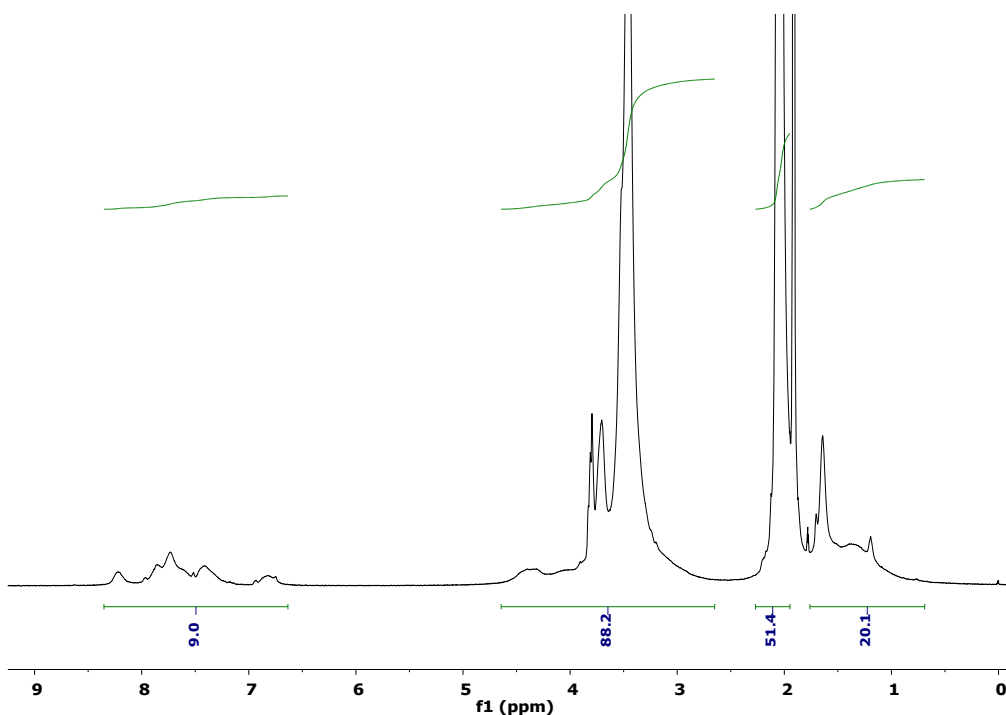
SI Figure 6. ¹H NMR (500MHz, d₄-MeOD) showing PMOx modified G5 L-lysine dendrimer with unmodified amino groups.



SI Figure 7. ¹H NMR (500MHz, d₄-MeOD) showing PMOx modified G5 L-lysine dendrimer after reaction with succinic anhydride (note that neighbouring lysine proton signals adjacent to modified amines contribute in region ~2.5ppm).



SI Figure 8. ^1H NMR (500MHz, d4-acetic acid) showing PMOx modified G5 L-lysine dendrimer modified with Flumequine. Normalised for drug proton signals. No. of molecules/polymer calculation = $2377 (104.3 - 1) = 23$ (2377 from PMOx NCH_2CH_2 integration from SI Fig. 6).



SI Figure 9. ^1H NMR (500MHz, d4-acetic acid) showing PMOx modified G5 L-lysine dendrimer modified with Adapalene. Normalised for drug proton signals. No. of molecules/polymer calculation = $2377 / (88.2 - 3) = 28$ (2377 from PMOx NCH_2CH_2 integration from SI Fig. 6).