Supplementary information:

Figure S1 MS spectra of DLD

Figure S2 $^1$H NMR spectra of DLD
Figure S3 $^{13}$C NMR spectra of DLD

Figure S4 MS spectra of DLD-Chol
Figure S5 $^1$H NMR spectra of DLD-Chol

Figure S6 $^{13}$C NMR spectra of DLD-Chol
Figure S7 HMQC spectra of DLD-Chol

Figure S8 MS spectra of Man-DLD-Chol
Figure S9 $^1$H NMR spectra of Man-DLD-Chol

Figure S10 $^{13}$C NMR spectra of Man-DLD-Chol
Figure S11 HMQC spectra of Man-DLD-Chol

Figure S12 HMBC spectra of Man-DLD-Chol