ELECTRONIC SUPPLEMENTARY INFORMATION (ESI) for

Amphiphilic drug-peptide-polymer conjugates based on poly(ethylene glycol) and hyperbranched polyglycerol for epidermal growth factor receptor targeting: the effect of the conjugate aggregation on the *in vitro* activity

Lilla Pethő,^{†,#} György Kasza,^{‡,#} Eszter Lajkó,[§] Orsolya Láng,[§] László Kőhidai,[§] Béla Iván^{‡*} and Gábor Mező^{†,II*}

[†]MTA-ELTE Research Group of Peptide Chemistry, Eötvös Loránd University, Budapest, Hungary

*Polymer Chemistry Research Group, Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, Budapest, Hungary

[§]Department of Genetics, Cell- and Immunobiology, Semmelweis University, Budapest, Hungary ^IEötvös Loránd University, Faculty of Science, Institute of Chemistry, Budapest, Hungary

* Correspondence to:

Gábor Mező, e-mail: gmezo@elte.hu

and

Béla Iván, e-mail: ivan.bela@ttk.hu

and

György Kasza, e-mail: kasza.gyorgy@ttk.hu



Figure S1. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GE11 conjugate.



Figure S2. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-GE11 conjugate. (* marks the sugar-lost fragment derived from MS fragmentation)



Figure S3. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-D4 conjugate. (* marks the sugar-lost fragment derived from MS fragmentation)



Figure S4. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-D4 conjugate. (* marks the sugar-lost fragment derived from MS fragmentation)



Figure S5. UV-Vis spectrum of daunomycin at 100 μ M concentration between 530 and 700 nm wavelength.



Figure S6. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-GE11-PEG conjugate.



Figure S7. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-GE11-G₅-PEG conjugate.



Figure S8. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-GE11-HbPG conjugate.



Figure S9. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-GE11-G₅-HbPG conjugate.



Figure S10. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-D4-PEG conjugate.



Figure S11. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-D4-G₅-PEG conjugate.



Figure S12. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-D4-HbPG conjugate.



Figure S13. The RP-HPLC analytical chromatogram and ESI-MS mass spectrum of the Dau=Aoa-GFLG-D4-G₅-HbPG conjugate.



Figure S14. DLS size distribution at 100 μ M concentration (*left*) and the scattered intensity (kcps) as a function of concentration (μ M) (*right*) of Dau=Aoa-GFLG-GE11-PEG conjugate.



Figure S15. DLS size distribution at 100 μ M concentration (*left*) and the scattered intensity (kcps) as a function of concentration (μ M) (*right*) of Dau=Aoa-GFLG-GE11-G₅-PEG conjugate.



Figure S16. DLS size distribution at 100 μ M concentration (*left*) and the scattered intensity (kcps) as a function of concentration (μ M) (*right*) of Dau=Aoa-GFLG-GE11-HbPG conjugate.



Figure S17. DLS size distribution at 100 μ M concentration (*left*) and the scattered intensity (kcps) as a function of concentration (μ M) (*right*) of Dau=Aoa-GFLG-GE11-G₅-HbPG conjugate.



Figure S18. DLS size distribution at 100 μ mol/L concentration (*A*) and the scattered intensity (kcps) as a function of concentration (μ mol/L) (*B*) of Dau=Aoa-GFLG-D4-PEG conjugate.



Figure S19. DLS size distribution at 100 μ M concentration (*left*) and the scattered intensity (kcps) as a function of concentration (μ M) (*right*) of Dau=Aoa-GFLG-D4-G₅-PEG conjugate.



Figure S20. DLS size distribution at 100 μ M concentration (*left*) and the scattered intensity (kcps) as a function of concentration (μ M) (*right*) of Dau=Aoa-GFLG-D4-HbPG conjugate.