Synthesis and biocompatibility evaluation of fluorinated, single-tailed glucopyranoside surfactants

Xueshu Li, Jaroslav Turánek, Pavlína Knötigová, Hana Kudláčková, Josef Maŝek, D. Brant Pennington, Stephen E. Rankin, Barbara L. Knutson and Hans-Joachim Lehmler

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The EC_{50} values for the cytotoxicity and the haemolytic activity of the glucopyranoside surfactants were calculated with an incorrect dilution factor and are lower compared to the data presented in the manuscript.

The first three sentences in the second paragraph under **Biological studies** should read:

> The partially fluorinated glucopyranosides **8a–b** and **8d–e** were moderately toxic, with EC_{50} values ranging from 30 to 52 μM. These EC_{50} values are comparable to the EC_{50} values of the analogous hydrocarbon derivatives **9a–d**, which ranged from 38 to 50 μM. This is in contrast to the positive control, octylthioglucoside (OTG), which did not show significant cytotoxicity over the same concentration range.

The first sentence of the third paragraph under **Biological studies** should read:

> The two glucopyranosides **8c** and **8f** with the perfluorooctyl terminus were even less toxic than **8a–b** and **8d–e**, with EC_{50} values >250 μM.

The beginning of the fourth paragraph under **Biological studies** should read:

> The results from the MTT assay were further confirmed by Hoffman modulation contrast microscopy (Fig. 3). In agreement with the results form the MTT assay, treatment of B16F10 cells with high concentrations of surfactant **8c** (24 h, 250 μM) surfactant neither altered cell growth nor induced morphological changes in comparison to the control (Fig. 3(A) and (B)). In contrast, surfactants **8e** and **9e** induced retardation in cell proliferation and caused an abnormal prolongated morphology of the cells at a concentration close to the EC_{50} (Fig. 3(C) and (D)). In addition, both surfactants induced apoptosis in a significant number of cells. No viable cells were observed at high concentrations (250 μM) of **8e** and **9e** (Fig. 3(E) and (F)).

The beginning of the last paragraph under **Biological studies** should read:

> In addition to the cytotoxicity experiments, the haemolytic activity of all surfactants was assessed using rabbit red blood cells. The glucopyranosides **8a–f** and **9a–f** were haemolytic at low millimolar concentrations. The haemolytic activity decreased for both groups of surfactants in the presence of serum, with EC_{50} values >2.5 mM in the presence of serum and >0.8 mM in the absence of serum

The caption to Fig. 3 should read:

> **Fig. 3** Cytotoxic effect of glucopyranosides **8c**, **8e** and **9e** in the B16F10 mouse melanoma cell line. The B16F10 cells were treated for 24 h with (A) the vehicle (PBS + 1% DMSO) or with glucopyranoside (B) **8c** (250 μM), (C) **8e** (41 μM, black arrows indicate abnormal spindle-shaped cells), (D) **9e** (41 μM, black arrow indicate abnormal spindle-shaped cell, white arrow indicate typical necrotic cell), (E) **8e** (250 μM) or (F) **9e** (250 μM, black arrows indicate cellular debris, white arrows indicate necrotic cells). The fluorescent markers Yo-Pro-1 (green) and PI (red/yellow) were used for the visualization of early apoptotic changes and post-apoptotic secondary necrosis in B16F10 cells treated for 24 h with (G) vehicle (green arrows indicate early stage of apoptosis, orange arrows indicate late stage of apoptosis) or (H) **8e** (41 μM, green arrows indicate early stage of apoptosis, orange arrows indicate late stage of apoptosis, red arrows indicate secondary necrosis). The cells were observed under an epifluorescent microscope.

The sentence describing the concentration range employed in the MTT-based cytotoxicity tests should read:

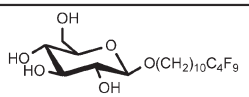
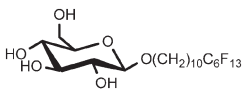
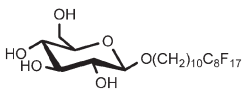
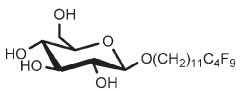
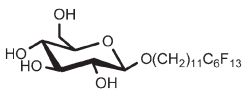
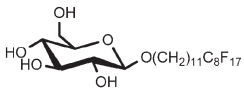
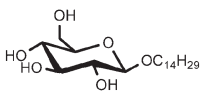
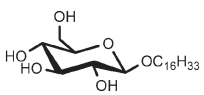
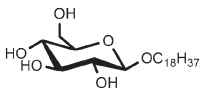
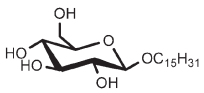
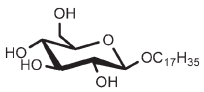
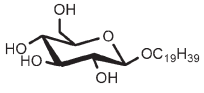
> Glucopyranosides dissolved in sterile PBS (total volume of 20 mL) were added to each well and the cytotoxic effect was evaluated after 24 h of exposure over a concentration range from 1 to 250 μM using the MTT assay.

The sentence describing the concentration range employed for the determination of the haemolytic activity should read:

> The surfactants were tested in concentration range extending from 6.6 μM to 3.3 mM.

The EC_{50} values in Table 2 should read as follows:

Table 2 Assessment of cytotoxicity and haemolytic activity of partially fluorinated glucopyranosides and their hydrocarbon analogues in the B16F10 cell line[12,46]

Entry	Structure $R_{(F\ or\ H)}$-β-D-Glu	Cytotoxicity, EC_{50}/μM	Haemolytic activity, EC_{50}[a]/mM)	
			Without serum	20 % Serum
Fluorocarbon surfactants				
8a		32	>3.3 (10%)	>3.3 (10%)
8b		52	>3.3 (25%)	>3.3
8c		>250	>3.3	>3.3
8d		32	2.5	>3.3
8e		30	>3.3	>3.3
8f		>250	>3.3	>3.3
Hydrocarbon surfactants				
9a		41	1.7	2.5
9b		50	>3.3 (30%)	>3.3
9c		32	>3.3 (10%)	>3.3
9d		38	0.8	2.5
9e		38	2.5	>3.3 (5%)
9f		100	>3.3	>3.3
OTG	Octylthioglucoside	620	0.5	3

[a] Data in parenthesis represent the percent haemolysis at a 3.3 mM concentration of the respective glucopyranoside.

The cytotoxicity curves for surfactants **8c**, **8e** and **9e** and octylthioglucoside (OTG) in Fig. 2 have been corrected. Fig. 2 should look as follows:

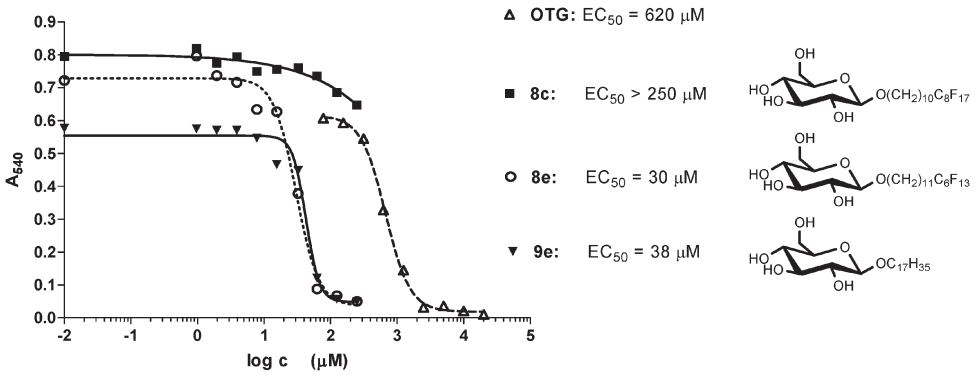


Fig. 2 Cytotoxic effect of glucopyranosides **8c**, **8e** and **9e** in the B16F10 mouse melanoma cell line. B16F10 cells were exposed for 24 h to the respective glucopyranoside at the concentrations shown and assessed for MTT activity as described in the Experimental section. A representative hydrocarbon surfactant, octylthioglucoside (OTG), is shown for comparison.

Bis(BF_2)-2,2′-bidipyrrins, a class of BODIPY dyes with new spectroscopic and photophysical properties

Barbara Ventura, Giancarlo Marconi, Martin Bröring, Robin Krüger and Lucia Flamigni

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There is an error in the data contained in Table 1. The corrected version is shown below:

Table 1 Spectroscopic (absorption maxima, molar absorption coefficients, exciton splitting, emission maxima, Stokes shift) and photophysical parameters (fluorescence quantum yield, lifetime, radiative and non-radiative rate constants) of monomers and dimers in toluene solutions, 295 K. The dielectric constant ε, the viscosity η and the refraction index n are reported for toluene

	Toluene ($\varepsilon = 2.38$, $\eta = 0.586 \times 10^{-3}$ Pa s, $n = 1.497$)								
	λ_{abs}/nm	$10^{-4}\varepsilon$/M^{-1} cm^{-1}	$\Delta\nu_{ES}$/cm^{-1}	λ_{em}[a]/nm	$\Delta\nu_{SS}$/cm^{-1}	Φ_{fl}[b]	τ[c]/ns	k_r/s^{-1}	k_{nr}/s^{-1}
Mon1	381	0.74	—	540	210	1.00	5.8	1.8×10^8	0
	534	8.20							
Mon2	378	0.70	—	538	420	0.88	5.0	1.8×10^8	2.4×10^7
	526	7.26							
Mon3	380	0.71	—	538	320	0.80	4.4	1.8×10^8	4.5×10^7
	529	7.75							
Mon4	380	0.78	—	540	170	1.00	5.9	1.8×10^8	0
	535	8.89							
Dim1	393	1.66	2630	648	2270	0.71	3.4	2.1×10^8	8.5×10^7
	492	6.44							
	565	7.36							
Dim2	394	1.62	2530	638	2250	0.67	3.4	2.0×10^8	9.7×10^7
	489	6.71							
	558	7.71							
Dim3	395	1.70	2520	638	2220	0.69	3.3	2.1×10^8	9.4×10^7
	490	7.20							
	559	8.26							
Dim4	393	1.55	2610	650	2250	0.76	3.4	2.2×10^8	7.1×10^7
	494	6.46							
	567	7.15							

[a] λ_{max} derived from corrected emission spectra. [b] Luminescence quantum yields in air free toluene, against *N*,*N*′-bis(1-hexylheptyl)-3,4:9,10-perylenebis(dicarboximide) in aerated dicloromethane as a standard, see Experimental section. Excitation at 490 nm. [c] Fluorescence lifetimes in air-equilibrated toluene. Excitation at 465 nm.

Aromatic oligoamide macrocycles from the bimolecular coupling of folded oligomeric precursors

Liuqing Lijian Zhong, Kazuhiro Yamato, Xiaheng Zhang, Wen Feng, Pengchi Deng, Lihua Yuan, Xiao Cheng Zeng and Bing Gong

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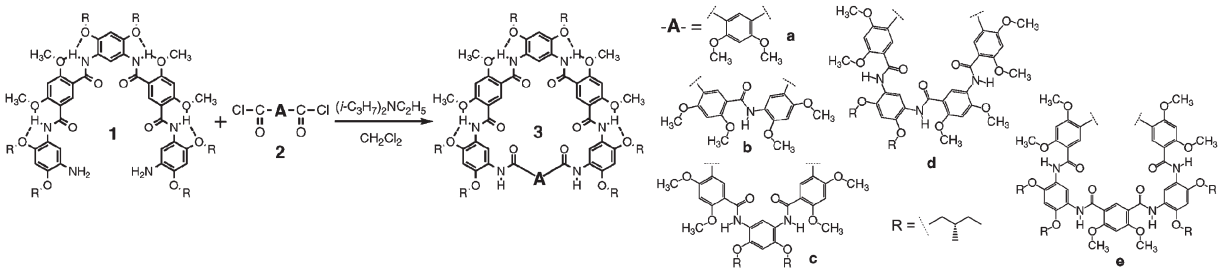
There is an error in the configuration of the R group shown in Scheme 2. The correct version is shown below:



Scheme 2 Bimolecular coupling/cyclization involving **1** and diacid chlorides of various sizes.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

Additions and corrections can be viewed online by accessing the original article to which they apply.

