CORRECTION

[View Article Online](#)
[View Journal](#) | [View Issue](#)

Cite this: *Org. Biomol. Chem.*, 2019, **17**, 4919

Correction: Trehalose-cored amphiphiles for membrane protein stabilization: importance of the detergent micelle size in GPCR stability

Manabendra Das,^a Yang Du,^b Jonas S. Mortensen,^c Manuel Ramos,^d Lubna Ghani,^a Ho Jin Lee,^a Hyoung Eun Bae,^a Bernadette Byrne,^e Lan Guan,^d Claus J. Loland,^c Brian K. Kobilka^b and Pil Seok Chae^{*a}

DOI: 10.1039/c9ob90075f
[rsc.li/obc](#)

Correction for 'Trehalose-cored amphiphiles for membrane protein stabilization: importance of the detergent micelle size in GPCR stability' by Manabendra Das *et al.*, *Org. Biomol. Chem.*, 2019, **17**, 3249–3257.

The authors regret that there were errors in the chemical structures of the amphiphiles in Fig. 2a and 3a. All the sugar units of TCG-C5 to TCM-C10 are identical (*i.e.* β -D-glucose for TCG-C5 to TCG-C7 and β -D-maltose for TCM-C8 to TCM-C10). The correct figures are shown below.

^aDepartment of Bionanotechnology, Hanyang University, Ansan, 155-88, Korea. E-mail: pchae@hanyang.ac.kr

^bMolecular and Cellular Physiology, Stanford University, Stanford, CA 94305, USA. E-mail: kobilka@stanford.edu

^cDepartment of Neuroscience, University of Copenhagen, DK-2200 Copenhagen, Denmark. E-mail: cllo@sund.ku.dk

^dDepartment of Cell Physiology and Molecular Biophysics, Center for Membrane Protein Research, School of Medicine, Texas Tech University Health Sciences Center, Lubbock, TX 79430, USA. E-mail: lan.guan@ttuhsc.edu

^eDepartment of Life Sciences, Imperial College London, London, SW7 2AZ UK. E-mail: b.byrne@imperial.ac.uk

Fig. 2 (a) Synthetic scheme and chemical structures of newly prepared trehalose-cored amphiphiles (TCGs/TCMs/TCG-Ls). Novel amphiphiles were derived from α,α -trehalose via dibenzylidenated trehalose (A) and tetra-alkylated tetra-ol intermediates (B). The tetra-alkylated tetra-ol intermediates and TCGs/TCMs/TCG-Ls contain a C₂ axis passing through the central part of the molecules, indicated by the blue dotted line on the chemical structures of the tetra-ol intermediate. The inset within circle (black) illustrates a known mechanism of β -selective glycosylation involving neighboring group participation (NGP). (b) Schematic representation of a membrane protein interacting with one of the new detergents following extraction from the membrane.

Fig. 3 (a) The chemical structure of TCG-C5 is given to illustrate the axial anomeric protons (H_a and $H_{a'}$) and equatorial anomeric protons (H_e) and their couplings with the neighboring protons (H in blue color). (b) Partial 1H NMR spectrum of TCG-C5 showing its high anomeric purity. The NMR spectrum of TCG-C5 gave two doublets at 4.64 and 4.34 ppm, along with a coupling constant ($^3J_{aa}$) of 8.0 Hz, typical peak characteristics of β -anomeric protons. TCG-C5 also contains α -anomeric proton (H_e), giving doublets at 5.18 ppm with a reduced coupling constant ($^3J_{ae} = 4.0$ Hz). (c) A partial ^{13}C NMR spectrum of TCG-C5. Only anomeric carbon signals for TCG-C5 are assigned.

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