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Corrigendum

Corrigendum to "Studies on epoxidation of enantiomerically pure 2,3-dideoxy hex-2-enitols: a convenient access to highly functionalized enantiomerically pure tetrahydrofuran derivatives" [Tetrahedron: *Asymmetry* 17 (2006) 1189]

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The authors regret that the experimental data for compounds **8**–**14** were not incorporated in this paper which are as follows:

(2E)-4,6-Di-O-benzyl-5-hydroxy-2,3-dideoxy-D-*threo-hex-2-enitol* **8**: Oil, eluent for column chromatography, 3:7 EtOAc–Hex v/v, R_f 0.38 (1:1 EtOAc/hexane); IR (Neat, cm^{-1}): 3409 (O–H str), 3012 (=C–H str), 2925 (–C–H str), 1637, 1496, 1454 (C=C str), 1216 (C–O str), 1093; ^1H NMR (200 MHz, $CDCl_3$): δ 7.36–7.22 (m, 10H, Ar*H*), 5.88 (dt, $J_{2,3} = 15.6$ Hz and $J_{2,1} = 4.9$ Hz, 1H, H-2), 5.63 (dd, $J_{3,2} = 15.6$ Hz and $J_{3,4} = 7.6$ Hz, 1H, H-3), 4.64–4.33 (m, 4H, $2 \times CH_2Ph$), 4.11 (d, $J_{1,2} = 4.5$ Hz, 2H, H-1), 3.95 (br t, $J = 6.2$ Hz, 1H, H-4), 3.76 (dd, $J = 9.7$ Hz and $J = 5.4$ Hz, 1H, H-5), 3.57 (dd, $J_{6a,6b} = 10.0$ Hz and $J_{6a,5} = 4.0$ Hz, 1H, H-6a) 3.48 (dd, $J_{6b,6a} = 10.0$ Hz and $J_{6b,5} = 5.5$ Hz, 1H, H-6b); ^{13}C NMR (50 MHz, $CDCl_3$): δ 138.4 (Ar q*C*), 134.9 (C-2), 128.8, 128.3, 128.2 (Ar*C*), 128.1 (C-3), 80.2 (C-4), 73.8 (C-1), 73.4 (C-5), 71.1, 70.9 ($2 \times CH_2Ph$), 63.0 (C-6); FAB MS calcd for $C_{20}H_{24}O_4$ *m*/*z* 328; found 329 $[M+1]^{+\cdot}$, 311 $[M+1-H_2O]^{+\cdot}$, 237 $[M-CH_2Ph]^{+\cdot}$, 221 $[M-OCH_2Ph]^{+\cdot}$. Elemental analysis calcd for $C_{20}H_{24}O_4$ (328.41) C, 73.14; H, 7.36. Found: C, 72.60; H, 7.82.

(2E)-4,6-Di-O-benzyl-5-hydroxy-2,3-dideoxy-D-*erythro-hex-2-enitol* **9**: Oil, eluent for column chromatography, 3:7 EtOAc–Hex v/v, R_f 0.40 (1:1 EtOAc/hexane); IR (Neat, cm^{-1}): 3387 (O–H str), 3033 (=C–H str), 2937 (–C–H str), 1594, 1494, 1454 (C=C str), 1112 (C–O str), 1054; ^1H NMR (200 MHz, $CDCl_3$): δ 7.28–7.26 (m, 10H, Ar*H*), 5.88 (dt, $J_{2,3} = 15.6$ Hz and $J_{2,1} = 5.0$ Hz, 1H, H-2), 5.67 (dd, $J_{3,2} = 15.6$ Hz and $J_{3,4} = 6.6$ Hz, 1H, H-3), 4.59–4.29 (m, 4H, $2 \times CH_2Ph$), 4.12 (d, $J_{1,2} = 4.8$ Hz, 2H, H-1), 3.85–3.80 (m, 2H, H-4 and H-5), 3.59 (dd, $J_{6a,6b} = 9.3$ Hz and $J_{6a,5} = 3.2$ Hz, 1H, H-6a), 3.51 (dd, $J_{6b,6a} = 9.8$ Hz and $J_{6b,5} = 5.2$ Hz, 1H, H-6b); ^{13}C NMR (50 MHz, $CDCl_3$): δ 138.5, 138.3 (Ar q*C*), 135.4 (C-2), 128.8, 128.5, 128.2 (Ar*C*), 128.0 (C-3), 80.1 (C-4), 73.8 (C-1), 72.8 (C-5), 71.3, 70.8 ($2 \times CH_2Ph$), 63.0 (C-6); FAB MS calcd for $C_{20}H_{24}O_4$ *m*/*z* 328; found 329 $[M+1]^{+\cdot}$, 311 $[M+1-H_2O]^{+\cdot}$, 239 $[M+2-CH_2Ph]^{+\cdot}$, 221 $[M-OCH_2Ph]^{+\cdot}$. Elemental analysis calcd for $C_{20}H_{24}O_4$ (328.41) C, 73.14; H, 7.36. Found: C, 73.39; H, 7.76.

(2E)-4,5,6-Tri-O-benzyl-2,3-dideoxy-D-*threo-hex-2-enitol* **10**: Oil, eluent for column chromatography, 3:22 EtOAc–Hex v/v, R_f 0.48 (3:7 EtOAc/hexane); IR (Neat, cm^{-1}): 3443 (O–H str), 3012 (=C–H str), 2930 (–C–H str), 1496, 1454 (C=C str), 1217, 1092 (C–O str); ^1H NMR (200 MHz, $CDCl_3$): δ 7.32–7.25 (m, 15H, Ar*H*), 5.81 (dt, $J_{2,3} = 15.7$ Hz and $J_{2,1} = 5.0$ Hz, 1H, H-2), 5.65 (dd, $J_{3,2} = 15.7$ Hz and $J_{3,4} = 7.1$ Hz, 1H, H-3), 4.77–4.36 (m, 6H, $3 \times CH_2Ph$), 4.09 (d, $J_{1,2} = 4.8$ Hz, 2H, H-1), 4.01 (dd, $J_{4,3} = 7.0$ Hz and $J_{4,5} = 4.1$ Hz, 1H, H-4), 3.71–3.56 (m, 3H, H-5, H-6a and H-6b); ^{13}C NMR (50 MHz, $CDCl_3$): δ 139.1, 138.8, 138.7 (Ar q*C*), 133.5 (C-2), 128.7, 128.5, 128.2 128.1 (Ar*C*), 128.0

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(C-3), 80.8 (C-4), 79.7 (C-5), 73.8 (C-1), 73.7, 71.2, 70.7 ($3\times CH_2Ph$), 63.3 (C-6); FAB MS calcd for $C_{27}H_{30}O_4$ *m/z* 418; found 419 $[M+1]^{+\cdot}$, 401 $[M+1-H_2O]^{+\cdot}$, 327 $[M-CH_2Ph]^{+\cdot}$, 311 $[M-OCH_2Ph]^{+\cdot}$, 289, 220, 181. Elemental analysis calcd for $C_{27}H_{30}O_4$ (418.54) C, 77.48; H, 7.22. Found: C, 77.32; H, 7.38.

*(2E)-4,5,6-Tri-O-benzyl-2,3-dideoxy-*D*-erythro-hex-2-enitol* **11**: Oil, eluent for column chromatography, 3:22 EtOAc–Hex v/v, R_f 0.55 (3:7 EtOAc/hexane); IR (Neat, cm^{-1}): 3426 (O–H str), 3063, 3031 (=C–H str), 2925 (–C–H str), 1604, 1496, 1454 (C=C str), 1093 (C–O str), 1093 (C–O str); ^1H NMR (200 MHz, $CDCl_3$): δ 7.30–7.22 (m, 15H, Ar*H*), 5.84 (dt, $J_{2,3}=15.7$ Hz and $J_{2,1}=4.9$ Hz, 1H, H-2), 5.69 (dd, $J_{3,2}=15.7$ Hz and $J_{3,4}=7.1$ Hz, 1H, H-3), 4.69–4.35 (m, 6H, $3\times CH_2Ph$), 4.12 (d, $J_{1,2}=4.5$ Hz, 2H, H-1), 4.02 (dd, $J_{4,3}=7.0$ Hz and $J_{4,5}=4.8$ Hz, 1H, H-4), 3.78–3.70 (m, 1H, H-5) 3.63–3.60 (m, 2H, H-6a and H-6b); ^{13}C NMR (50 MHz, $CDCl_3$): δ 139.1, 139.0, 138.7 (Ar q*C*), 134.3 (C-2), 128.7, 128.3, 128.1 (Ar*C*), 128.0 (C-3), 80.8 (C-4), 80.1 (C-5), 73.7 (C-1), 73.4, 72.5, 72.3 ($3\times CH_2Ph$), 63.2 (C-6); FAB MS calcd for $C_{27}H_{30}O_4$ *m/z* 418; found 419 $[M+1]^{+\cdot}$, 327 $[M-CH_2Ph]^{+\cdot}$, 311 $[M-OCH_2Ph]^{+\cdot}$, 308, 280, 256. Elemental analysis calcd for $C_{27}H_{30}O_4$ (418.54) C, 77.48; H, 7.22. Found: C, 77.78; H, 7.48.

*(2E)-4,6-Di-O-benzyl-5-O-acetyl-2,3-dideoxy-*D*-threo-hex-2-enitol* **12**: Oil, eluent for column chromatography, 3:17 EtOAc–Hex v/v, R_f 0.56 (2:3 EtOAc/hexane); IR (Neat, cm^{-1}): 3471 (O–H str), 3063, 3030 (=C–H str), 2923 (–C–H str), 1738 (C=O str), 1495, 1453 (C=C str), 1372 (C–H def of CH_3), 1103, 1010 (C–O str); ^1H NMR (200 MHz, $CDCl_3$): δ 7.36–7.29 (m, 10H, Ar*H*), 5.90 (dt, $J_{2,3}=15.6$ Hz and $J_{2,1}=4.6$ Hz, 1H, H-2), 5.60 (dd, $J_{3,2}=15.6$ Hz and $J_{3,4}=7.3$ Hz, 1H, H-3), 5.18–5.09 (m, 1H, H-5), 4.67–4.35 (m, 4H, $2\times CH_2Ph$), 4.12 (d, $J_{1,2}=5.0$ Hz, 2H, H-1), 4.07 (m, 1H, H-4), 3.64 (dd, $J_{6a,6b}=10.4$ Hz and $J_{6a,5}=4.5$ Hz, 1H, H-6a) 3.57 (dd, $J_{6b,6a}=10.4$ Hz and $J_{6b,5}=5.5$ Hz, 1H, H-6b), 2.08 (s, 3H, $COCH_3$); ^{13}C NMR (50 MHz, $CDCl_3$): δ 171.1 ($COCH_3$), 138.5, 138.2 (Ar q*C*), 134.6 (C-2), 128.7, 128.1 (Ar*C*), 127.2 (C-3), 78.0 (C-5), 74.3 (C-4), 73.6 (C-1), 71.1, 68.8 ($2\times CH_2Ph$), 63.0 (C-6), 21.5 ($COCH_3$); FAB MS calcd for $C_{22}H_{26}O_5$ *m/z* 370; found 371 $[M+1]^{+\cdot}$, 353 $[M+1-H_2O]^{+\cdot}$, 327 $[M-COCH_3]^{+\cdot}$, 263 $[M-OCH_2Ph]^{+\cdot}$, 181, 157.

*(2E)-4,5,6-Tri-O-acetyl-2,3-dideoxy-*D*-threo-hex-2-enitol* **13**: Oil, eluent for column chromatography, 7:13 EtOAc–Hex v/v, R_f 0.27 (1:1 EtOAc/hexane); IR (Neat, cm^{-1}): 3467 (O–H str), 2955 (C–H str), 1745 (C=O str), 1436 (C=C str), 1374 (C–H def of CH_3), 1229 (C–O str); ^1H NMR (200 MHz, $CDCl_3$): δ 5.98 (dt, $J_{2,3}=15.4$ Hz and $J_{2,1}=4.7$ Hz, 1H, H-2), 5.66 (dd, $J_{3,2}=15.4$ Hz and $J_{3,4}=6.1$ Hz, 1H, H-3), 5.50 (t, $J_{4,3=5}=6.5$ Hz, 1H, H-4), 5.21 (m, 1H, H-5), 4.31 (dd, $J_{6a,6b}=12.0$ Hz, $J_{6a,5}=3.8$ Hz, 1H, H-6a), 4.16 (d, $J_{1,2}=4.2$ Hz, 2H, H-1), 4.06 (dd, $J_{6b,6a}=12.0$ Hz, $J_{6b,5}=6.3$ Hz, 1H, H-6b), 2.09, 2.08, 2.06 ($3\times OCOCH_3$); ^{13}C NMR (50 MHz, $CDCl_3$): δ 171.0, 170.6 and 170.2 ($3\times COCH_3$), 135.7 (C-2), 124.0 (C-3), 72.2 (C-4), 71.8 (C-5), 62.6 (C-1), 62.4 (C-6), 21.2, 21.1, 21.0 ($3\times OCOCH_3$); FAB MS calcd for $C_{12}H_{18}O_7$ *m/z* 274; found 275 $[M+1]^{+\cdot}$, 257 $[M+1-H_2O]^{+\cdot}$, 215 $[M-OCOCH_3]^{+\cdot}$, 207, 193, 155. Elemental analysis calcd for $C_{12}H_{18}O_7$ (274.27) C, 52.55; H, 6.61. Found: C, 52.50; H, 7.01.

*(2E)-4,5,6-Tri-O-acetyl-2,3-dideoxy-*D*-erythro-hex-2-enitol* **14**: Oil, eluent for column chromatography, 7:13 EtOAc–Hex v/v, R_f 0.28 (1:1 EtOAc/hexane); IR (Neat, cm^{-1}): 3465 (O–H str), 2935 (C–H str), 1743 (C=O str), 1436 (C=C str), 1373 (C–H def of CH_3), 1228 (C–O str); ^1H NMR (200 MHz, $CDCl_3$): δ 5.96 (dt, $J_{2,3}=15.5$ Hz and $J_{2,1}=4.5$ Hz, 1H, H-2), 5.69 (dd, $J_{3,2}=15.5$ Hz and $J_{3,4}=6.8$ Hz, 1H, H-3), 5.49 (dd, $J_{4,3}=5.8$ Hz, $J_{4,5}=4.6$ Hz, 1H, H-4), 5.21 (quintet, $J_{5,6b}=7.1$ Hz, $J_{5,6a=4}=3.8$ Hz, 1H, H-5), 4.27 (dd, $J_{6a,6b}=12.1$ Hz, $J_{6a,5}=3.5$ Hz, 1H, H-6a), 4.16 (dd, $J_{6b,6a}=12.1$ Hz and $J_{6b,5}=7.0$ Hz, 1H, H-6b), 4.15 (d, $J_{1,2}=3.6$ Hz, 2H, H-1), 2.08, 2.05 ($3\times OCOCH_3$); ^{13}C NMR (50 MHz, $CDCl_3$): δ 171.1, 170.6 and 170.1 ($3\times COCH_3$), 135.5 (C-2), 124.0 (C-3), 72.5 (C-4), 71.8 (C-5), 62.3 (C-1), 62.2 (C-6), 21.2, 21.1, 20.9 ($3\times OCOCH_3$); FAB MS calcd for $C_{12}H_{18}O_7$ *m/z* 274; found 275 $[M+1]^{+\cdot}$, 257 $[M+1-H_2O]^{+\cdot}$, 215 $[M-OCOCH_3]^{+\cdot}$, 213, 155, 137. Elemental analysis calcd for $C_{12}H_{18}O_7$ (274.27) C, 52.55; H, 6.61. Found: C, 52.53; H, 6.68.

On page number 1193 (right column), in line 21 and 25 as well as in Ref. 30 (page number 1198) of this letter, **15** or **17** should be read as **15/17**.

References

Furthermore, an error in arranging the Refs. 9, 10 and 13 in this paper (page number 1197) was found. The correct sequence is as follows:

9. Katsuki, T.; Lee, A. W. M.; Ma, P.; Martin, V. S.; Masamune, S.; Sharpless, K. B.; Tuddenham, D.; Walker, F. J. *J. Org. Chem.* **1982**, *47*, 1373–1378.
10. Lee, A. W. M.; Martin, V. S.; Masamune, S.; Sharpless, K. B.; Walker, F. J. *J. Am. Chem. Soc.* **1982**, *104*, 3515–3516.
13. (a) Katsuki, T.; Sharpless, K. B. *J. Am. Chem. Soc.* **1980**, *102*, 5974–5976; (b) Behrens, C. H.; Sharpless, K. B. *Aldrichim. Acta* **1983**, *16*, 67–79, and references cited therein; (c) *Organic Reactions*; Paquette, Leo A. et al., Eds.; John Wiley & sons, 1996; Vol. 48, pp 1–299.