**Supporting Information**

Synthesis and characterisation of $\mathbf{L^1}$:

To a mixture of (bis(2-pyridylmethyl)amino)acetic acid (0.384 g, 1.494 mmol), 1,3-dicyclohexylcarbodiimide (0.338 g, 1.640 mmol), N-hydroxysuccinimide (0.189 g, 1.640 mmol), and dimethylaminopyridine (0.020 g, 0.163 mmol) was added DMF (15 mL) at 0° C. The mixture was warmed to room temperature after 1 hr and then filtered after 6 hrs. To the resulting solution glucosamine·HCl (0.353 g, 1.640 mmol) and triethylamine (0.327 g, 3.232 mmol) were added as a solution in DMF/$H_2O$ (2 mL/1 mL). The reaction was evacuated after a further 24 hrs and the residue purified by silica gel chromatography (7:3 EtOAc: MeOH eluent) to afford the product as a light yellow solid (0.542 g, 87%). $^1$H NMR (MeOH-$d_4$, 400.13 MHz): δ 8.54 (d, $^3J_{13,14}$ = 4.0 Hz, 2H; H-14), 7.80 (m, 2H; H-12), 7.53 (d, $^3J_{11,12}$ = 8.0 Hz, 1.4H; H-11α), 7.49 (d, $^3J_{11,12}$ = 8.0 Hz, 0.6H; H-11β), 7.32 (m, 2H; H-13), 5.13 (d, $^3J_{1',2'}$ = 2.0 Hz, 0.7H; H-1α), 4.74 (d, $^3J_{1,2}$ = 8.0 Hz, 0.3H; H1-β), 3.93 (d, $^2J_{9a,9b/9'a,9'b}$ = 15.0 Hz, 2H; H-9a, H-9'a), 3.90 (d, $^2J_{9a,9b/9'a,9'b}$ = 15.0 Hz, 2H; H-9'a, H-9'b), 3.85 (m, 2.1H, H-2α, H-3α, H-4α), 3.71 (m, 1.9H; H-2β, H-6aα, H-6bβ, H-3β or H-4β), 3.45 (m, 0.7H; H-5α), 3.32 (m, 2.9H; H-6aβ, H-6bβ, H-8a, H-8b, H-5β, H-3β or H-4β). $^{13}$C{$^1$H} NMR (MeOH-$d_4$, 100.62 MHz): δ 174.41 (*C*7β), 173.67 (*C*7α), 159.12 (*C*10α), 159.07 (C10β), 150.04 (*C*14β), 150.01 (*C*14α), 138.68 (*C*12α), 138.68 (*C*12β), 125.28 (*C*11β), 125.11 (*C*11α), 124.00 (*C*13α and β), 97.01 (*C*1β), 92.56 (*C*1α), 77.98, 75.82 (*C*3β/*C*4β), 73.13, 72.83 (*C*3α/*C*4α), 72.19 (*C*5α), 72.04 (*C*5β), 61.04 (*C*9), 60.79 (*C*6α), 59.13 (*C*6β), 58.92 (*C*8), 58.46 (*C*2β), 55.68 (*C*2α). IR (cm$^{-1}$, thin film, AgBr plate): 3311 (br) (ν(OH)); 2965 (m) (ν(CH)); 1653 (m) (ν(amide I)). +ES-MS *m/z* (relative intensity) = 441 ([M + Na]$^+$, 100). Found: C, 53.82; H, 6.30; N, 12.61. Calc. for $C_{20}H_{26}N_4O_6$·1.5$H_2O$: C, 53.92; H, 6.56; N, 12.58.

Characterisation data for [Re($\mathbf{L^1}$)$(CO)_3$]Br:

$^1$H NMR (MeOH-$d_4$, 400.13 MHz): δ 8.90 (d, $^3J_{13,14}$ = 5.7 Hz, 2H; H-14), 7.98 (m, 2H; H-12), 7.59 (m, 2H; H-11), 7.42 (m, 2H; H-13), 5.38 (d, $^2J_{9a,9b}$ = 15.6 Hz, 1H; H-9a), 5.28

(d, $^{2}J_{9'a,9'b}$ = 17.4 Hz, 1H; H-9'a) 5.26 (d, $^{3}J_{1',2'}$ = 3.3 Hz, 0.7H; H-1α), 5.02 (m, 2H; H-9b, H-9'b), 4.73 (m, 2H; H-8a, H-8b), 4.66 (d, $^{3}J_{1,2}$ = 7.6 Hz, 0.3H; H-1β), 3.85 (dd, $^{3}J_{1',2'}$ = 3.3 Hz, $^{3}J_{2',3'}$ = 10.5 Hz, 0.7H; H-2α), 3.92 (dd, $^{3}J_{5',6a'}$ = 2.1 Hz, $^{2}J_{6a',6b'}$ = 12.0 Hz, 0.7H; H-6aα), 3.80 (m, 3H; H-6bα, H-6aβ, H-6bβ, H-2β, H-3α, H-4α), 3.35 (m, 0.9H; H-3β, H-4β, H-5β). $^{13}C\{^{1}H\}$ NMR (MeOH-$d_4$, 100.62 MHz): δ 196.81, 196.73, 196.19 (*fac*-$Re(CO)_3$), 169.70 (*C*7β), 169.45 (*C*7α), 162.71, 162.35, 162.33, 162.07 (C10), 153.19, 153.08 (*C*14), 141.73 (*C*12), 126.97, 126.93, 126.79 (*C*11), 124.82, 124.75, 124.54 (*C*13), 96.89 (*C*1β), 92.58 (*C*1α), 78.08, 75.94 (*C*3β/*C*4β), 73.12, 72.80, 72.43 (*C*3α/*C*4α/*C*5α), 72.08 (*C*5β), 70.44, 69.98, 69.60, 69.50 (*C*8α, *C*8β, *C*9, *C*9'), 62.74, 62.70 (*C*6α/*C*6β), 58.36 (*C*2β), 55.64 (*C*2α). IR ($cm^{-1}$, thin film, AgBr plate). 3390 (br) (ν(OH)); 2960 (m) (ν(CH)); 2030 (vs), 1922 (vs) (ν(*fac*-$Re(CO)_3$)); 1665 (w) (ν(amide I)). +ES-MS *m/z* (relative intensity) = 689, 687 ($[M]^+$, 100). $\Lambda_M$ = 145 $\Omega^{-1}cm^2mol^{-1}$ (1:1 electrolyte). Found: C, 35.34; H, 3.61; N, 7.09. Calc. for $[C_{23}H_{26}N_4O_9Re]Br \cdot H_2O$: C, 35.12; H, 3.59; N, 7.12.