Supporting material

1S. Binding isotherm for 1:1 Cu(II)/Neotetren complex formation. $C_L = 3 \times 10^{-5}$ M, $pH = 0.52$, $I = 0.5$ M (NaCl), $\lambda = 300$ nm, $T = 25$°C.

2S. Binding isotherm for 2:1 Cu(II)/Neotetren complex formation. $C_L = 3 \times 10^{-5}$ M, $pH = 3.5$, $I = 0.5$ M (NaCl), $\lambda = 300$ nm, $T = 25$°C. The continuous line shows the trend calculated if the 1:1 complex, instead of 2:1 complex, should have formed.

3S. Spectrophotometric titrations fit for 1:1 Cu(II)/Neotetren complex formation; $C_L = 3 \times 10^{-5}$ M, pH = 0.52, $I = 0.5$ M (NaCl), $\lambda = 300$ nm, $T = 25$°C, fit of the data to Eq. (1).

4S. Spectrophotometric titrations fit for 2:1 Cu(II)/Neotetren complex formation; $C_L = 3 \times 10^{-5}$ M, pH = 3.5, $I = 0.5$ M (NaCl), $\lambda = 300$ nm, $T = 25$°C, fit of the data to Eq. (2); the deviations at low Cu(II) load indicate the presence of the 1:1 complex.

5S. Stopped flow curve for 1:1 Cu(II)/Neotetren complex formation; $C_L = 1.0 \times 10^{-5}$ M, $C_{Cu} = 1.0 \times 10^{-3}$ M, pH = 1.15, $I = 0.5$ M (NaCl), $\lambda = 300$ nm, $T = 25$°C.

6S. Stopped flow curve for 2:1 Cu(II)/Neotetren complex formation; $C_L = 1.5 \times 10^{-6}$ M, $C_{Cu} = 5 \times 10^{-5}$ M, pH = 3.00, $I = 0.5$ M (NaCl), $\lambda = 300$ nm, $T = 25$°C.

7S. Difference spectrophotometric titration (DNA added in both reference and sample cuvettes) of the CuNeotetren/DNA system; top) $C_D = 1.5 \times 10^{-5}$ M, $C_P = 0$ M; bottom) $C_D = 1.5 \times 10^{-5}$ M, $C_P = 1.5 \times 10^{-4}$ M, $I = 0.11$ M, $T = 25$°C, pH = 7.0.

8S. Scatchard plot for the CuNeotetren/DNA system. $C_D = 1.5 \times 10^{-5}$ M, $C_P = (0 \div 1.5) \times 10^{-4}$ M, $I = 0.11$ M, pH = 7.0, $\lambda = 275$ nm, $T = 25$°C. The titration variable is $r = [DS]/C_P$, being $C_P$ the total DNA concentration and $[DS] = (A-A_o)/\Delta \varepsilon$ with $\Delta \varepsilon = \varepsilon_{DS} - \varepsilon_D$ first estimated from the amplitude of the titration curve.

9S. Scatchard plot for the CuNeotetren/DNA system. $C_D = 1.5 \times 10^{-5}$ M, $C_P = (0 \div 1.5) \times 10^{-4}$ M, $I = 0.025$ M, pH = 7.0, $\lambda = 275$ nm, $T = 25$°C.
10S. Stopped flow curve for the CuNeotetren/DNA system. \( C_D = 1.5 \times 10^{-6} \) M, \( C_{DNA} = 3.5 \times 10^{-5} \) M, 
\( I = 0.11 \) M, \( T = 25^\circ C, \ pH = 7.0, \ \lambda = 275 \) nm.

11S. Stopped flow curve for the Cu\(_2\)Neotetren/DNA system. \( C_D = 1.5 \times 10^{-6} \) M, \( C_{DNA} = 3.5 \times 10^{-5} \) M, 
\( I = 0.71 \) M, \( T = 25^\circ C, \ pH = 7.0, \ \lambda = 275 \) nm.
Figure 3S

\[ 10^3 \left( \frac{C_{\text{Cu}} \Delta \text{Abs} + \Delta \text{Abs}/\Delta \varepsilon}{2} \right) (M^3) \]

\[ 10^3 (C_{\text{Cu}} + C_L) (M) \]

Figure 4S

\[ 10^7 \left( C_{\text{CuL}} \Delta \text{Abs} + \Delta \text{Abs}/\Delta \varepsilon^2 \right) (M^2) \]

\[ 10^3 (C_{\text{Cu}} + C_{\text{CuL}}) (M) \]