TOWARDS AN IMPROVED HIV-MICROBICIDE ACTIVITY THROUGH THE CO-ENCAPSULATION OF NRTI DRUGS IN BIOCOMPATIBLE METAL ORGANIC FRAMEWORKS NANOCARRIERS

M.T. Marcos-Almaraz, R. Gref, V. Agostoni, C. Kreuz, P. Clayette, C. Serre, P. Couvreur, P. Horcajada

1 Institut Lavoisier, Université de Versailles St-Quentin, UMR CNRS 8180, 45 avenue des Etats-Unis, 78035 Versailles Cedex, France.
2 Institut Galien Paris-Sud, UMR 8612, CNRS, Université Paris-Sud, Université Paris Saclay, Faculté de Pharmacie, 5 rue Jean-Baptiste Clément, F-92296 Châtenay-Malabry Cedex, France.
3 Institutde Sciences Moléculaires, UMR 8214, CNRS, Université Paris-Sud, Université Paris Saclay, Orsay, France.
4 Laboratoire de Neurovirologie, Bertin-Pharma, CEA, 18 route du Panorama, B.P. 6, 92265 Fontenay aux Roses Cedex, France.
5 Institut des Matériaux Poreux de Paris, FRE 2000 CNRS, Ecole Normale Supérieure, Ecole Supérieure de Physique et de Chimie Industrielles, PSL Research University, 75005, Paris, France.
**Figure S1.** Chromatogram and absorption spectra of 3TC-Tp, AZT-Tp, AZT-Mp and BTC released from AZT-Tp/3TC-TP loaded MIL-100(Fe) NPs and incubated during 24 h in PBS supplemented with 10% calf serum
Figure S2. Chromatogram and absorption spectrum of commercial AZT-Mp (50 mg.mL$^{-1}$).
Figure S3. TEM images of MIL-100(Fe) NPs just after encapsulation of AZT-Tp and 3TC-Tp (on the top) and after 2 months-storage at room temperature conditions upon lyophilization (on the middle). Scale bar = 100 nm. On the bottom: Colloidal stability of the co-loaded MIL-100(Fe) NPs just reconstituted in PBS-FBS after their lyophilization and storage for 2 months ($n = 3$).
Figure S4. Cell viability of macrophages treated with empty or co-loaded nanoMOFs. Data obtained from two independent experiments \((n = 2)\), performed each in triplicate. Results are expressed as percentage of cell viability in comparison to untreated control.