

## Supporting Information

### Nine Days Extended release of Adenosine from Biocompatible MOFs under Biologically-Relevant Conditions

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### **Loading and release profiles under different adenosine loading concentrations:**

Adenosine loading from different loading concentrations (11, 21, and 28 wt%) were attempted with both MOFs (UiO-66, and UiO-66-NH<sub>2</sub>) using a similar procedure as per Table S1. The amounts of adenosine released in DI water at different time intervals were measured using UV-Vis spectroscopy (Figure S1).

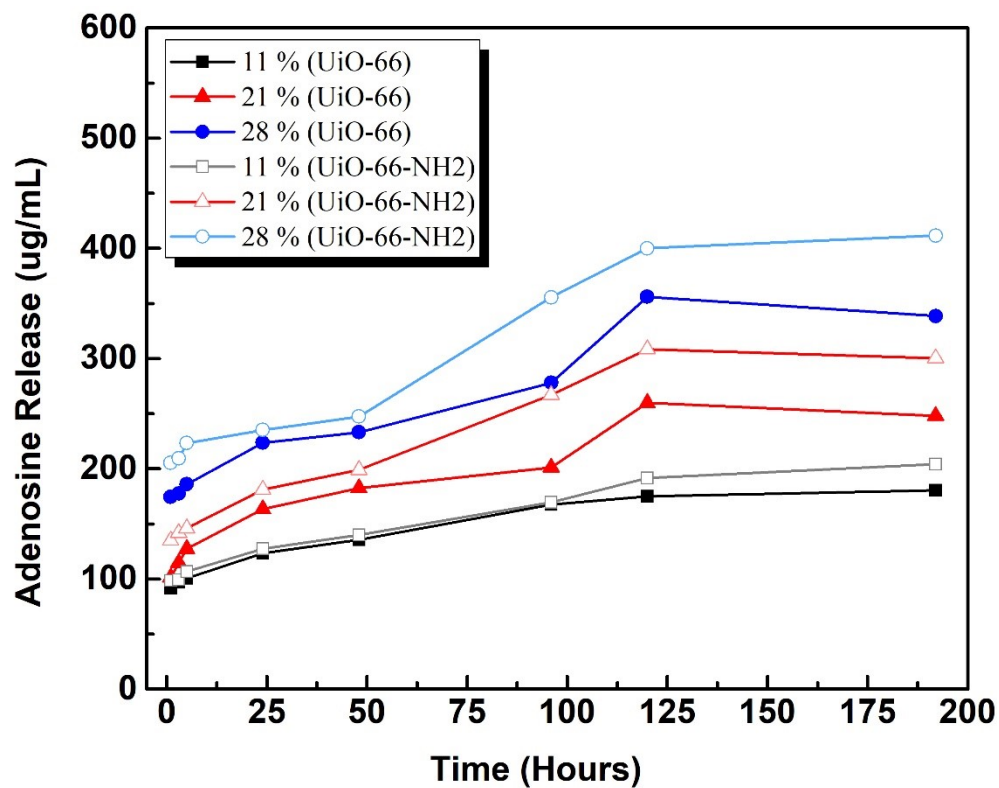
#### **Loading MOFs with Adenosine**

In a clean scintillation vial, different volumes of adenosine.HCl stock solution were taken and then completed to 5.168 mL using deionized water, followed by the addition of 52 mg of dry MOF with sonication for 5 minutes then left to stir for 24 hours at room temperature. Finally, the solid was separated through centrifugation at 6000 rpm for 30 minutes and washed with DI (5 mL) followed with ethanol (5mL). The separated solid was left to dry at 40°C overnight. The loading was determined by inspecting the remaining concentration of adenosine HCl in the loading solution using UV-Vis spectroscopy. Then the adenosine release profiles were studied for each sample showing the trend in **Figure S1**.

**Table S1.** Loading percentage of Adenosine within the two MOFs' UiO-66, and UiO-66-NH<sub>2</sub>.

<b>Sample Name</b>	<b>MOF Type</b>	<b>MOF Weight (mg)</b>	<b>Adenosine Stock Solution Volume (mL)</b>	<b>Loading (%)</b>
<b>A</b>	UiO-66	52	1.745	<b>11</b>
<b>B</b>			3.490	<b>21</b>
<b>C</b>			5.168	<b>28</b>
<b>D</b>	UiO-66-NH <sub>2</sub>		1.745	<b>11</b>
<b>E</b>			3.490	<b>21</b>
<b>F</b>			5.168	<b>28</b>

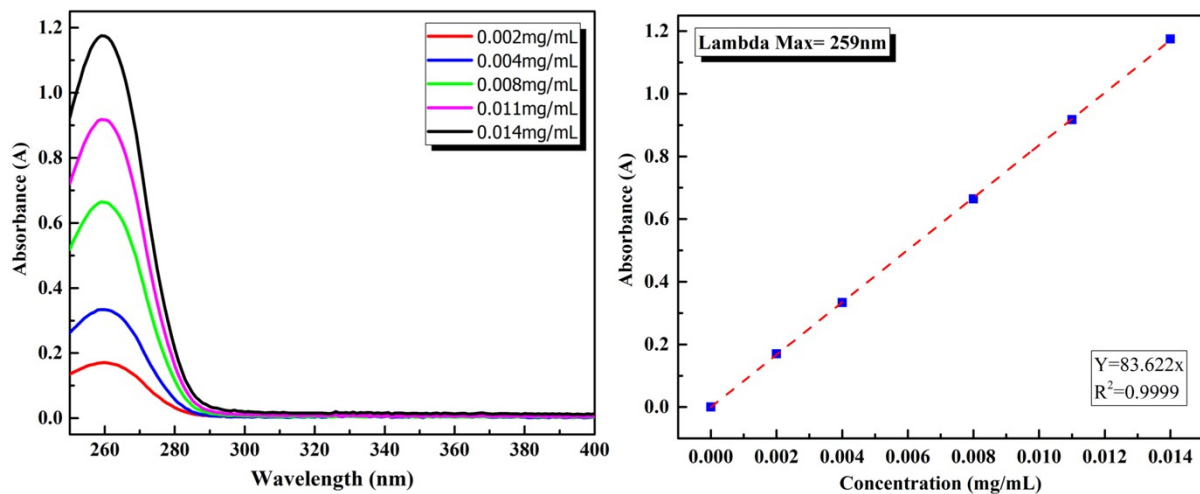
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**Figure S1.** Adenosine Release Profiles from UiO-66, and UiO-66-NH<sub>2</sub> loaded with different amounts of adenosine after 8 days incubation in DI.

## Calibration Curve for UV spectroscopy

**Adenosine.HCl (Ad.HCl)** Different Ad.HCl concentrations (2,4,8,11, and 14 ug/mL) were prepared. First an acidified stock solution of adenosine (25 mL DI + 840 uL 1M HCL solution), and subsequent dilutions were prepared to achieve the desired concentrations. UV-Vis spectroscopy was used to measure the absorbance of each of the prepared concentrations at  $\lambda_{\text{max}}$  259nm to construct the calibration curve, **Figure S2**.



**Figure S2.** Calibration Curve of Adenosine.HCl