Electronic Supplementary Informations

Bifunctional polypyridyl-Ru(II) complex grafted onto gadolinium-based nanoparticles for MR-imaging and photodynamic therapy.

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Table S1. Chemical composition of the nanoparticles

<table>
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<tr>
<th>Element</th>
<th>Gd</th>
<th>Ru</th>
<th>Si</th>
<th>N</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured quantity (mol)</td>
<td>1</td>
<td>0.0083</td>
<td>4</td>
<td>5.6</td>
<td>24.8</td>
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<tr>
<td>Measured quantity (wt %)</td>
<td>13.26</td>
<td>0.071</td>
<td>11.18</td>
<td>6.67</td>
<td>25.06</td>
</tr>
</tbody>
</table>

Figure S1: Epsilon value determination for the \([\text{Ru(Phen)}_2(\text{PhenCOOH})]^2+,2\text{PF}_6^-\) complex.
Figure S2: Retention spectra of ruthenium complexes by HPLC followed up by emission (black curve).

Figure S3: Irradiation of non-treated cells

Before (a), and after 10 min (b) irradiation and 45 min waiting
**Fig. S4.** Fluorescence cell imaging

Fluorescence imaging revealed no penetration to the nucleus; the ruthenium complex luminescence was detected in the cells cytoplasm.
Figure S5 1 Plot of $1/T_1$ (up) and $1/T_2$ (down) over Gd concentration of the GBN-[Ru] nanoparticles. The slope indicates the specific relaxivities ($r_1$, and $r_2$, respectively).

![Graph](image)

References