

# NMR Investigation of the Interaction of Three Non-Steroidal Anti-Inflammatory Drugs with Human Serum Albumin

Federica Aiello <sup>1,\*</sup>, Gloria Uccello-Barretta <sup>2,\*</sup>, Claudio Picchi <sup>2</sup>, Samuele Nazzi <sup>2</sup>, Alessandra Recchimurzo <sup>2</sup> and Federica Balzano <sup>2</sup>

<sup>1</sup> National Research Council, Institute for Chemical and Physical Processes (CNR-IPCF), Via G. Moruzzi, 1, 56124 Pisa, Italy

<sup>2</sup> Department of Chemistry and Industrial Chemistry, University of Pisa, Via G. Moruzzi 13, 56124 Pisa, Italy

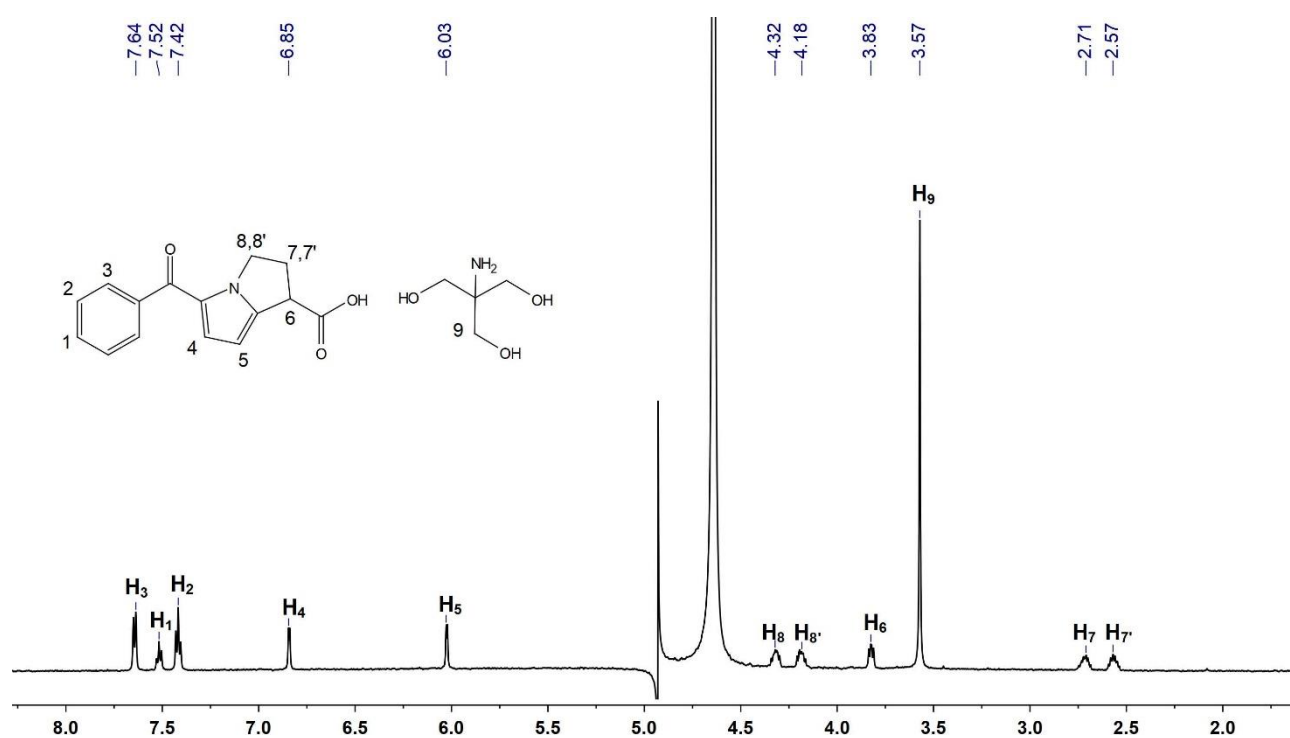


Figure S1. <sup>1</sup>H NMR (600 MHz, D<sub>2</sub>O, pH 7.4, 298 K) spectrum of KTR (2 mM).

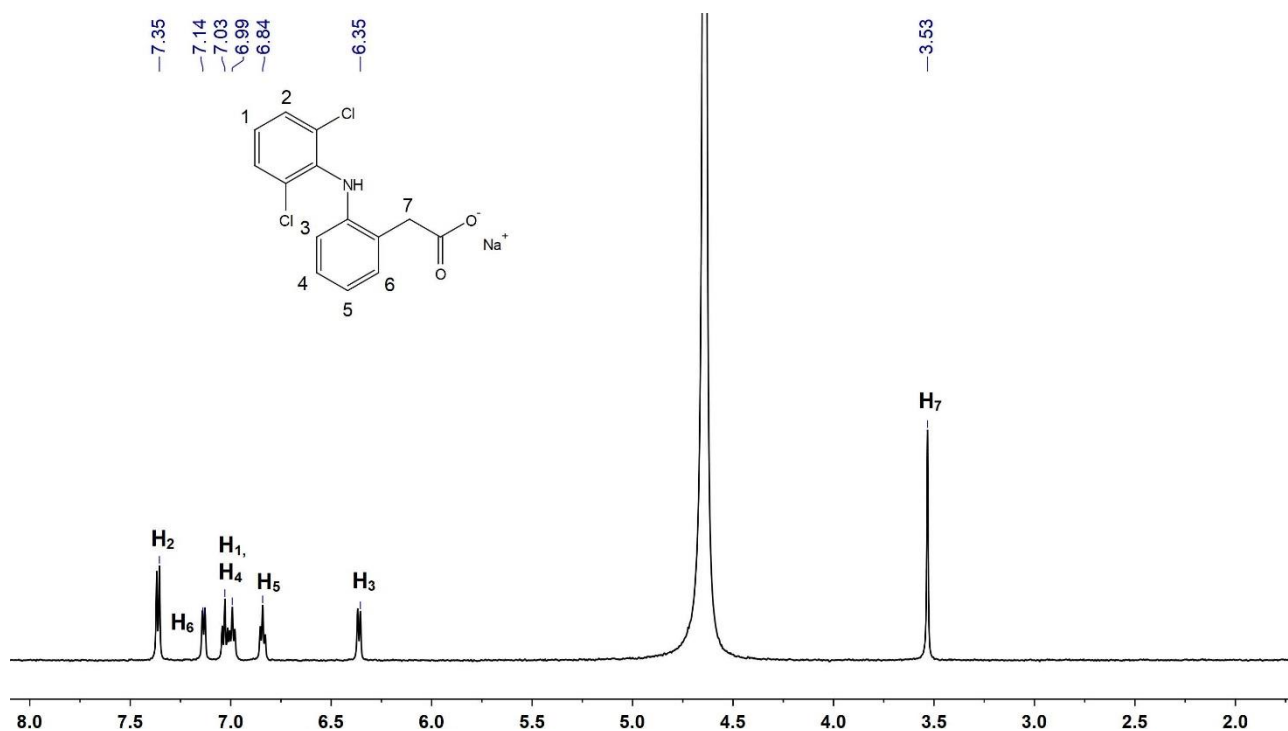


Figure S2.  $^1\text{H}$  NMR (600 MHz,  $\text{D}_2\text{O}$ , pH 7.4, 298 K) spectrum of DCF (2 mM).

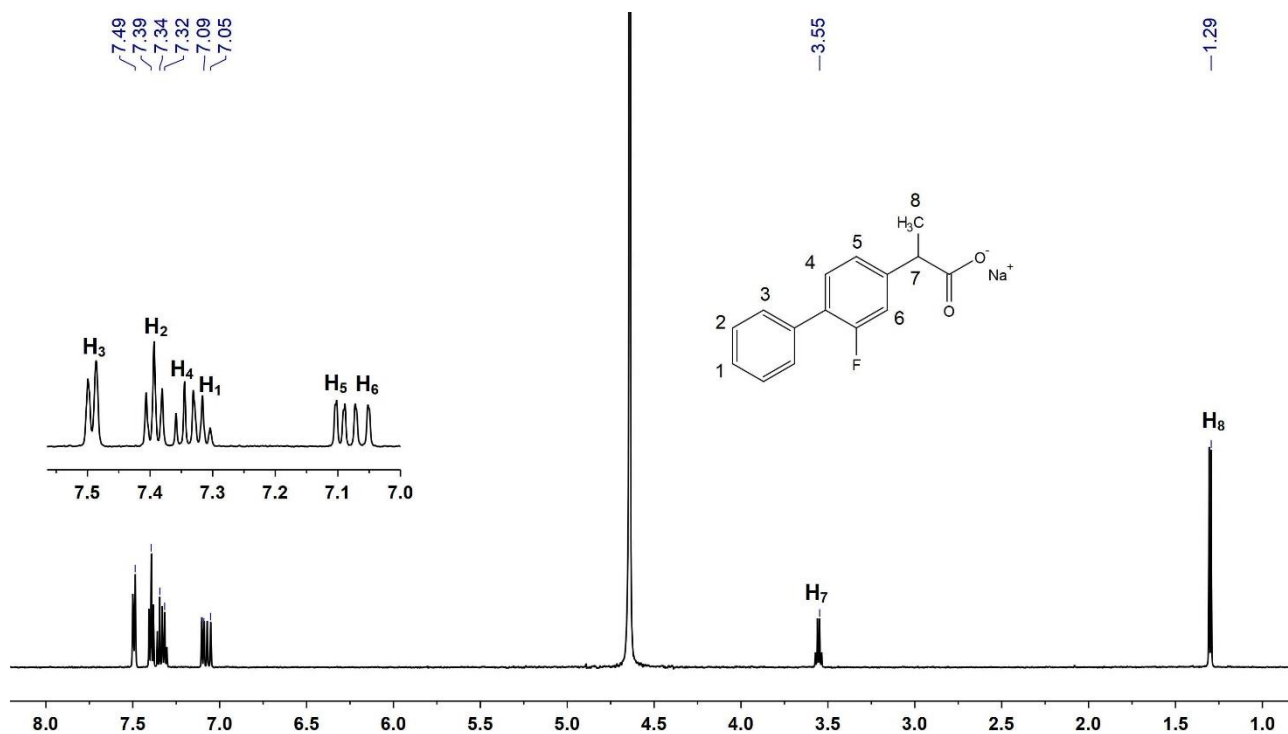


Figure S3.  $^1\text{H}$  NMR (600 MHz,  $\text{D}_2\text{O}$ , pH 7.4, 298 K) spectrum of FBP (2 mM).

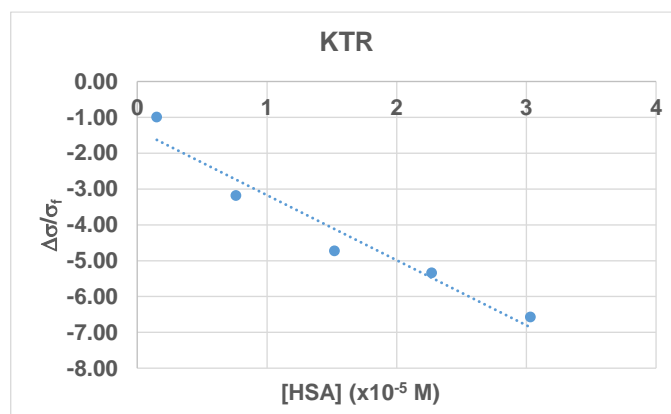
Table S1.  $^1\text{H}$  mono-selective relaxation rates ( $R_1^{\text{ms}}$ ,  $\text{s}^{-1}$ ) (600 MHz, 25  $^\circ\text{C}$ ,  $\text{D}_2\text{O}$ , pH = 7.4) of some protons of KTR (2 mM) alone and in mixtures with HSA at different molar ratios.

[HSA] (mg/mL)	H <sub>1</sub>	H <sub>4</sub>	H <sub>5</sub>	H <sub>6</sub>	H <sub>7</sub>	H <sub>7'</sub>	H <sub>8</sub>	H <sub>8'</sub>
	0.26	0.31	0.21	0.28	0.81	0.74	0.79	0.92
0.1	0.57	0.50	0.44	0.51	1.41	1.43	1.39	1.72
0.5	1.18	1.18	0.94	1.10	2.78	2.78	2.63	2.86
1.0	1.82	1.89	1.33	1.89	4.35	4.17	4.00	4.76
1.5	2.38	2.45	1.89	2.56	5.26	5.11	5.00	5.26

2.0	3.03	2.86	2.27	2.94	6.25	5.56	5.88	6.67
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**Table S2.** Affinity indexes ( $[A^N]$ ,  $M^{-1}$ ) and corresponding standard errors ( $\epsilon$ ,  $M^{-1}$ ) calculated for KTR protons from NMR data.

proton	$[A^N]$	$\epsilon$
H <sub>1</sub>	321195	8006
H <sub>4</sub>	268550	20519
H <sub>5</sub>	297606	12924
H <sub>6</sub>	306718	20595
H <sub>7</sub>	205002	16434
H <sub>7'</sub>	1953453	24511
H <sub>8</sub>	196082	13144
H <sub>8'</sub>	183820	17154



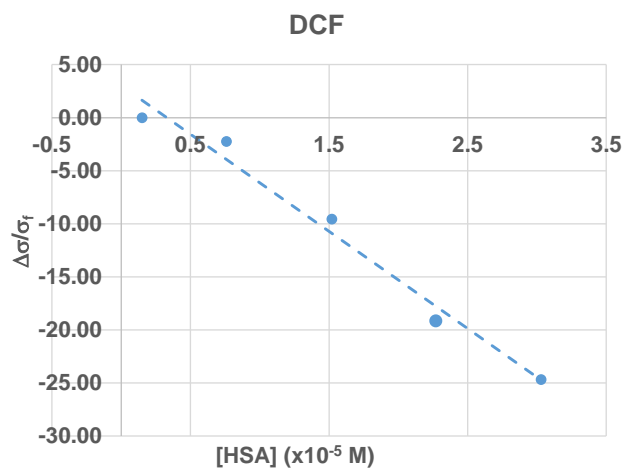
**Figure S4.**  $\Delta\sigma/\sigma_f$  of KTR (2 mM) plotted in function of HSA concentration.

**Table S3.**  $^1H$  mono-selective relaxation rates ( $R_1^{ms}$ ,  $s^{-1}$ ) (600 MHz, 25 °C, D<sub>2</sub>O, pH = 7.4) of some protons of DCF (2 mM) alone and in mixtures with HSA at different molar ratios

[HSA] (mg/mL)	H <sub>2</sub>	H <sub>3</sub>	H <sub>5</sub>	H <sub>6</sub>	H <sub>7</sub>
0	0.17	0.24	0.34	0.38	1.22
0.1	0.57	0.66	0.85	0.90	1.82
0.5	1.59	1.85	2.27	2.33	2.50
1.0	2.94	3.57	4.35	4.00	3.45
1.5	3.85	4.46	5.26	5.56	4.17
2.0	5.00	6.25	7.14	7.14	5.26

**Table S4.** Affinity indexes ( $[A^N]$ ,  $M^{-1}$ ) and corresponding standard errors ( $\epsilon$ ,  $M^{-1}$ ) calculated for DCF protons from NMR data.

proton	$[A^N]$	$\epsilon$
H <sub>2</sub>	903885	33206
H <sub>3</sub>	803831	41542
H <sub>5</sub>	624295	38067
H <sub>6</sub>	563672	7629
H <sub>7</sub>	96571	3173



**Figure S5.**  $\Delta\sigma/\sigma_i$  of DCF (2 mM) plotted in function of HSA concentration.

**Table S5.**  $^1\text{H}$  mono-selective relaxation rates ( $R_1^{\text{ms}}$ ,  $\text{s}^{-1}$ ) (600 MHz, 25 °C,  $\text{D}_2\text{O}$ , pH = 7.4) of some protons of FBP (2 mM) alone and in mixtures with HSA at different molar ratios.

[HSA] (mg/mL).	H <sub>3</sub>	H <sub>7</sub>	H <sub>8</sub>
0	0.34	0.34	1.33
0.1	0.58	0.57	1.45
0.5	1.39	1.37	1.89
1.0	2.50	2.27	2.22
1.5	2.94	2.81	2.63
2.0	3.33	3.85	3.45

**Table S6.** Affinity indexes ( $[\text{A}^{\text{N}}]$ ,  $\text{M}^{-1}$ ) and corresponding standard errors ( $\epsilon$ ,  $\text{M}^{-1}$ ) calculated for FBP protons from NMR data.

proton	$[\text{A}^{\text{N}}]$	$\epsilon$
H <sub>3</sub>	281482	37266
H <sub>7</sub>	327105	16837
H <sub>8</sub>	48999	4822