

Supporting Information

Design of polyurea networks containing anticancer and anti-inflammatory drugs for dual drug delivery purposes.

*Mariane A. de Resende,¹ Gabriele A. Pedroza,¹ Lucia H. G. M. C. Macêdo,¹ Ricardo de Oliveira,¹ Maria Amela-Cortes,² Yann Molard,² Eduardo F. Molina^{*1}*

¹*Universidade de Franca, Av. Dr. Armando Salles Oliveira 201, 14404-600 Franca, SP, Brazil*

²*Université Rennes, CNRS, ISCR - UMR 6226, ScanMAT – UMS 2001, F-35000 Rennes, France*

Corresponding author: Eduardo F. Molina

*email: eduardo.molina@unifran.edu.br

ORCID : 0000-0002-3574-2923

Naproxen and 5-FU analytical curves

The maximum absorbance values at 265 nm and 229 nm were used to construct the analytical curves of 5-FU and Nap drugs, respectively (Figure S1a and S1b).

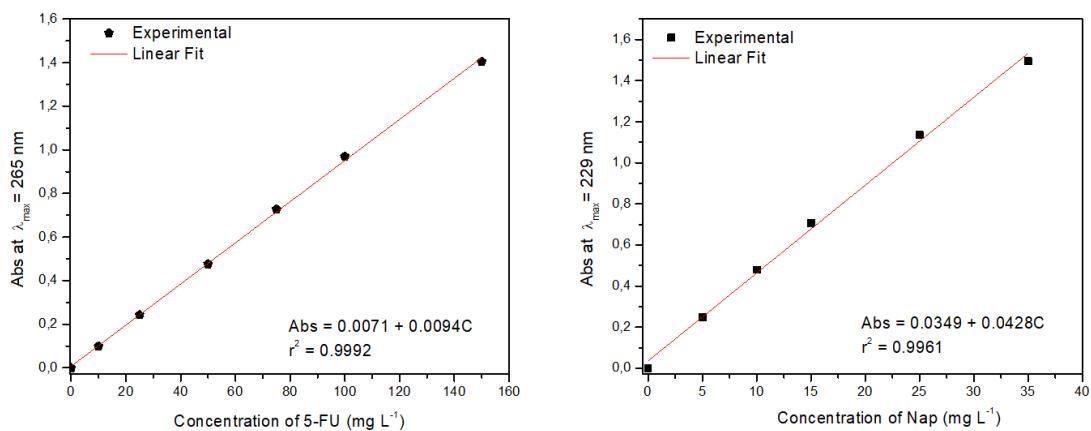


Figure S1. Analytical curve of (a) 5-FU and (b) Nap drug using distilled water (pH 6) as aqueous medium.

Polyurea macroscopic images

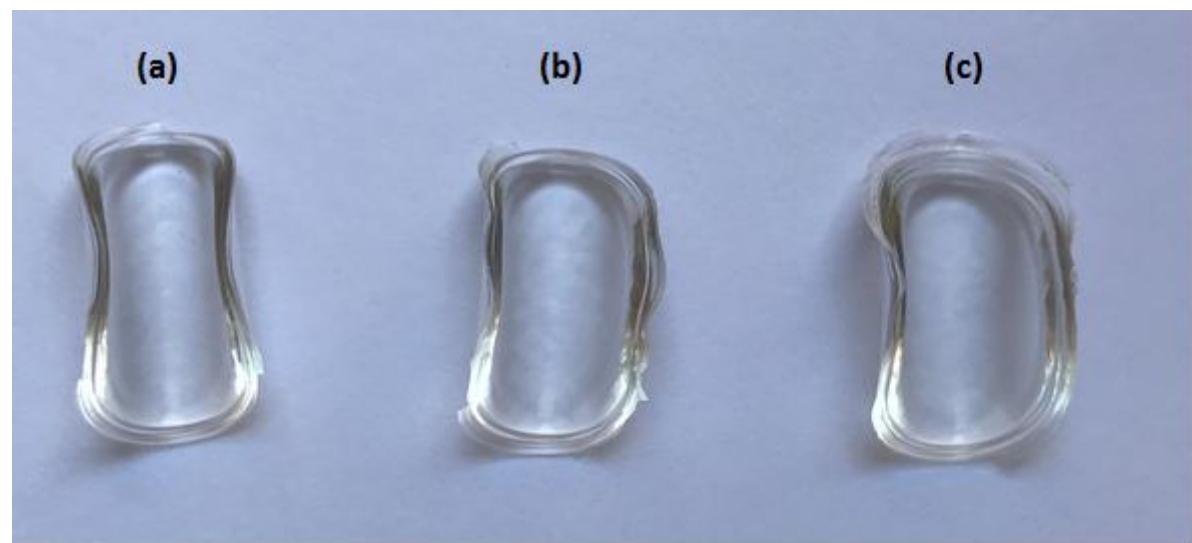


FIGURE S2: Photographs of the transparent and rubber polyurea gels (a) unloaded and loaded with (b) Naproxen and (c) 5-fuouracil.

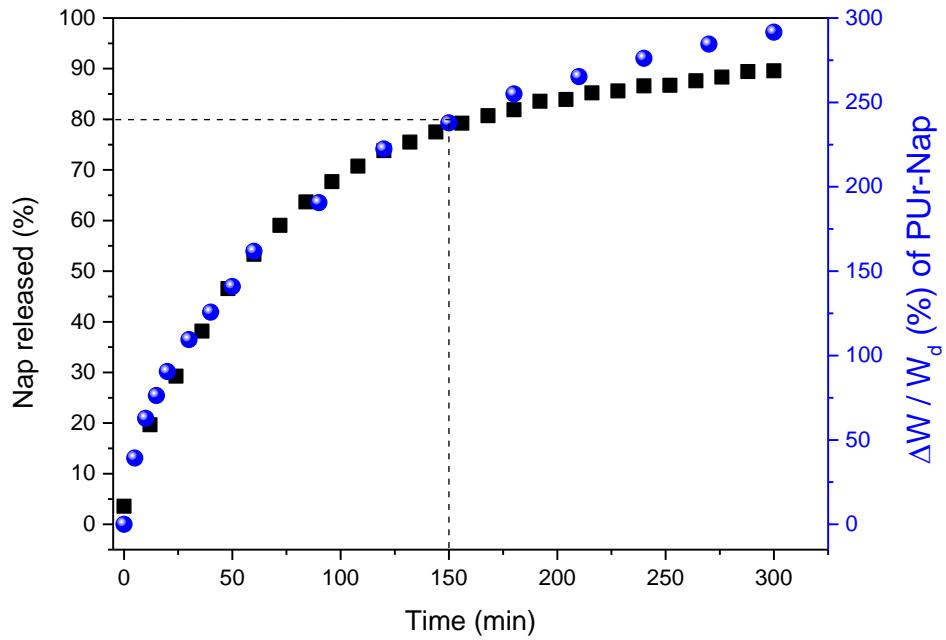


FIGURE S3: comparison between release profile and water uptake of PUR-Nap during the first 300 min of assays.

Reaction (A) of isocyanates²

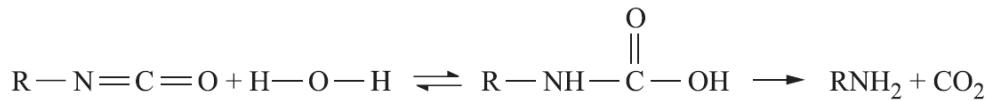


Table S1. Amount released of Nap and 5FU at different times, Korsmeyer-Peppas parameters, and release mechanism of the drugs from PUR samples.

Sample	Amount released(%)		Korsmeyer-Peppas parameters ¹		Release mechanism
	at 150min	at final assay	n	R ²	
PUR-Nap	80	99	0.62	0.99	anomalous transport
PUR-5FU	60	72	0.62	0.99	anomalous transport
PUR-Nap*	60	100	0.70	0.99	anomalous transport
PUR-5FU*	40	77	0.68	0.99	anomalous transport

*sample containing both Nap and 5FU drugs (simultaneous release assay)

References

1. Korsmeyer, R. W.; Gurny, R.; Doelker, E.; Buri, P.; Peppas, N. A. Mechanisms of solute release from porous hydrophilic polymers. *Int. J. Pharm.* 1983, **15**, 25–35.
2. Kricheldorf, H. R. ; Nuyken, O.; Swift, G. Handbook of polymer synthesis, second edition, CRC press, 2005.