

Supplementary Materials: Influence of Polymer Composition on the Controlled Release of Docetaxel: A Comparison of Non-Degradable Polymer Films for Oesophageal Drug-Eluting Stents

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Table S1. Actual amount of DTX and polymer used in each formulation.

Formulation	Actual Amount of DTX (mg)	Actual Amount of Polymer (mg)
PEVA ₁	4.04	400
PEVA ₅	21.05	400
PEVA ₁₀	44.44	400
PU ₁	3.88	385
PU ₅	20.26	385
PU ₁₀	42.44	385
Psi ₁	2.80	278
Psi ₅	14.63	278
Psi ₁₀	30.9	278

Table S2. Equations for release kinetics models.

Mathematical Models	Equation
Zero order	$Q_t = Q_0 + K_0 t$
First order	$\ln Q_t = \ln Q_0 + K_1 t$
Higuchi	$Q_t = KH t^{1/2}$
Hixson-Crowell	$Q_0^{1/3} - Q_t^{1/3} = K_s t$
Korsmeyer-Peppas	$Q_t/Q_\infty = Kktn$

Q_t : amount of drug released in time t ; Q_0 : initial amount of drug in the formulaion; Q_∞ : total amount of drug dissolved when the dosage form is exhausted; K_0 , K_1 , KH , K_s , Kk : release rate constants; n : release exponent

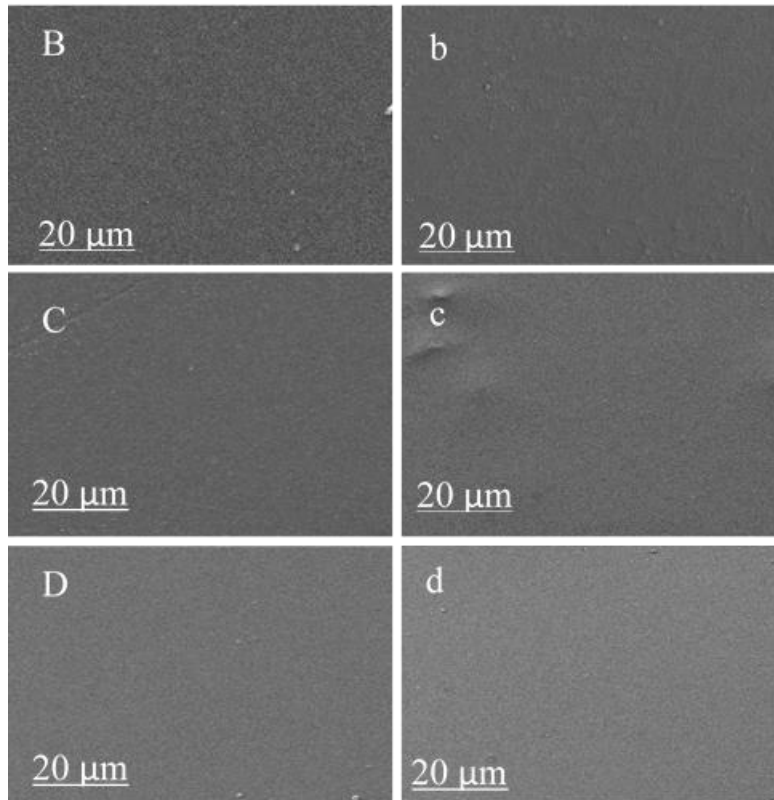
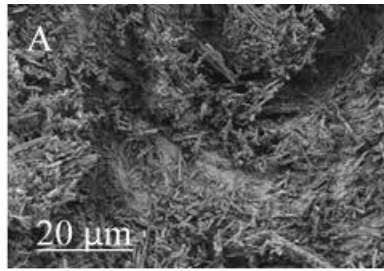


Figure S1. SEM images of (A) DTX, (B) PEVA, (b) PEVA₁₀, (C) PU, (c) PU₁₀, (D) Psi and (d) Psi₁₀.

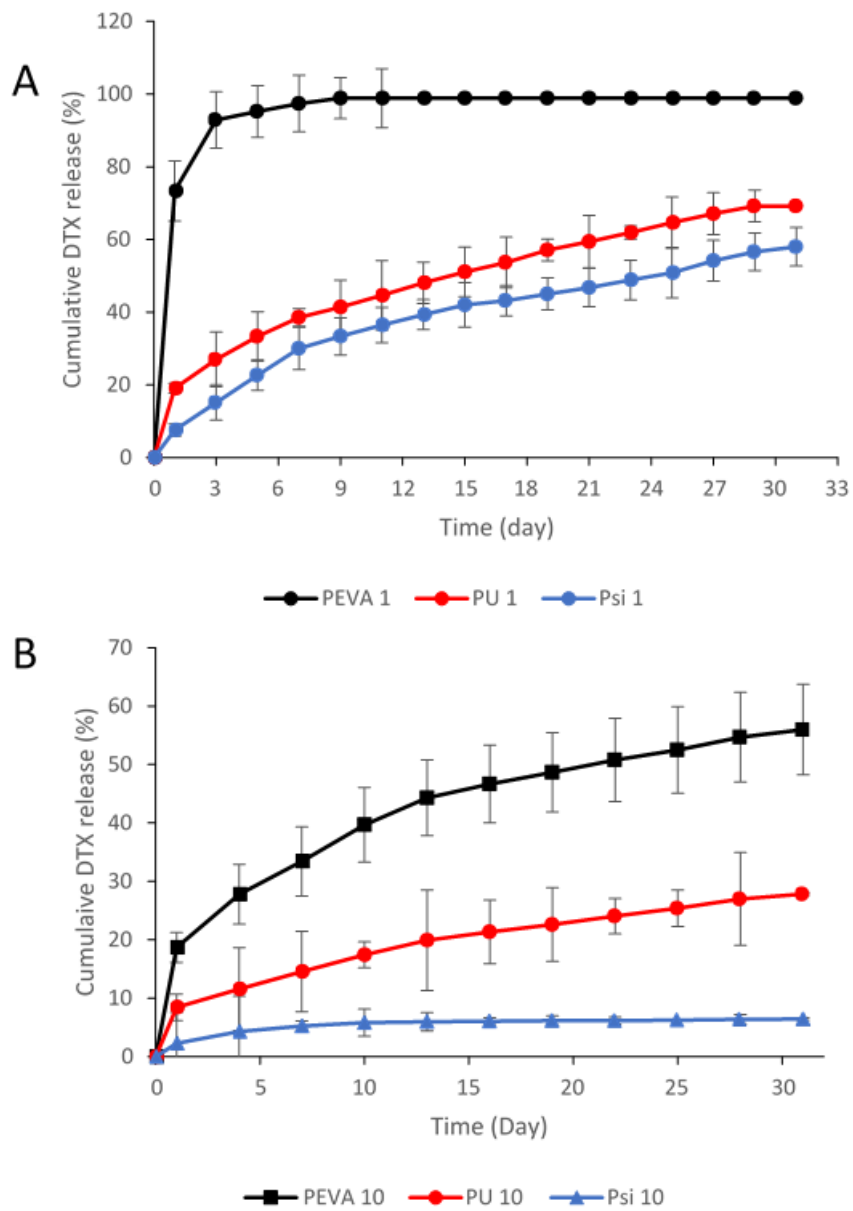


Figure S2. (A) In-vitro DTX release profile of PEVA₁, PU₁ and PS₁, (B) In-vitro DTX release profile of PEVA₁₀, PU₁₀ and PS₁₀.

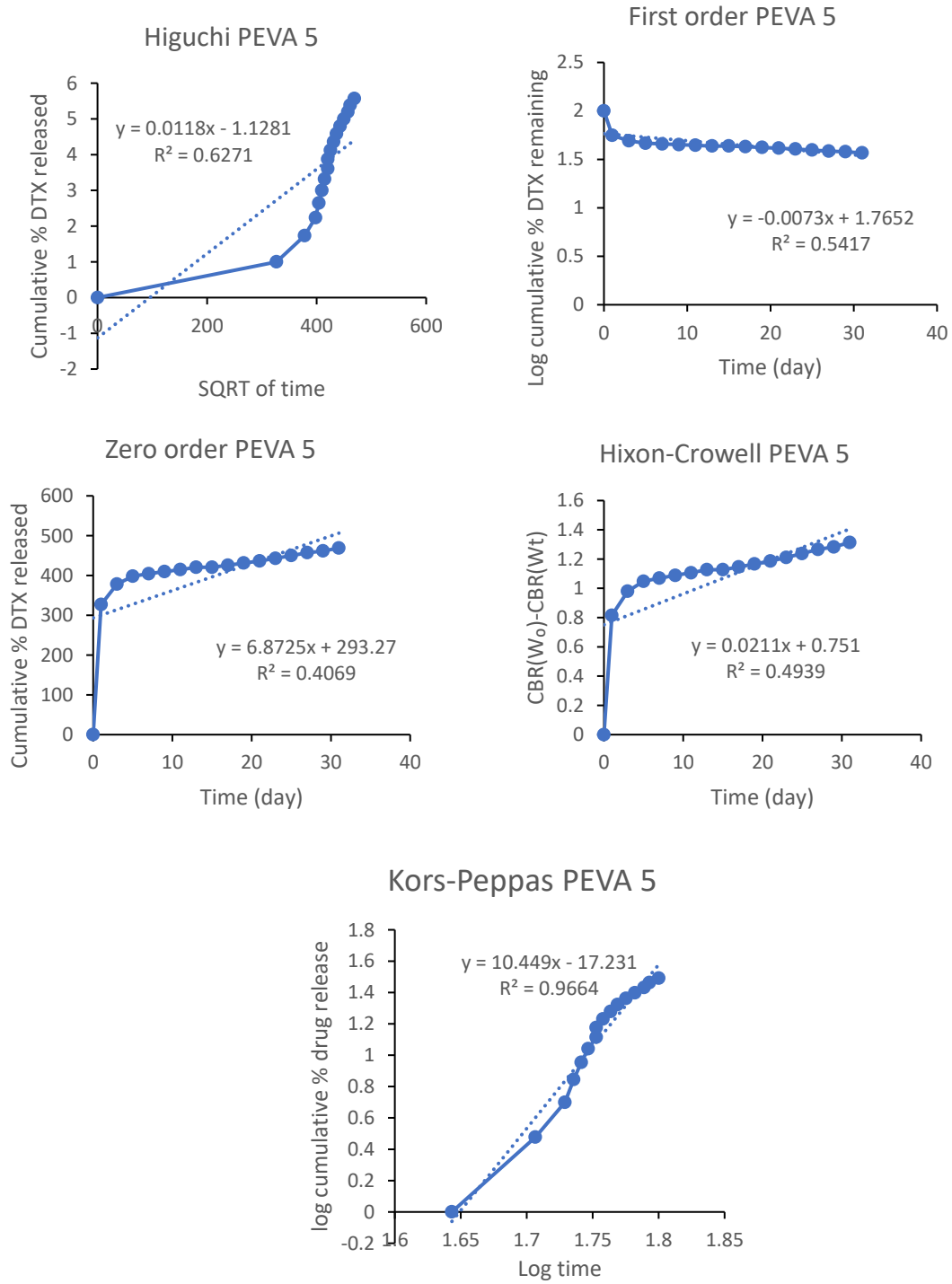


Figure S3. PEVA₅ in-vitro release data to Higuchi, first order, zero-order, Hixon and Kors-Peppas kinetics models.

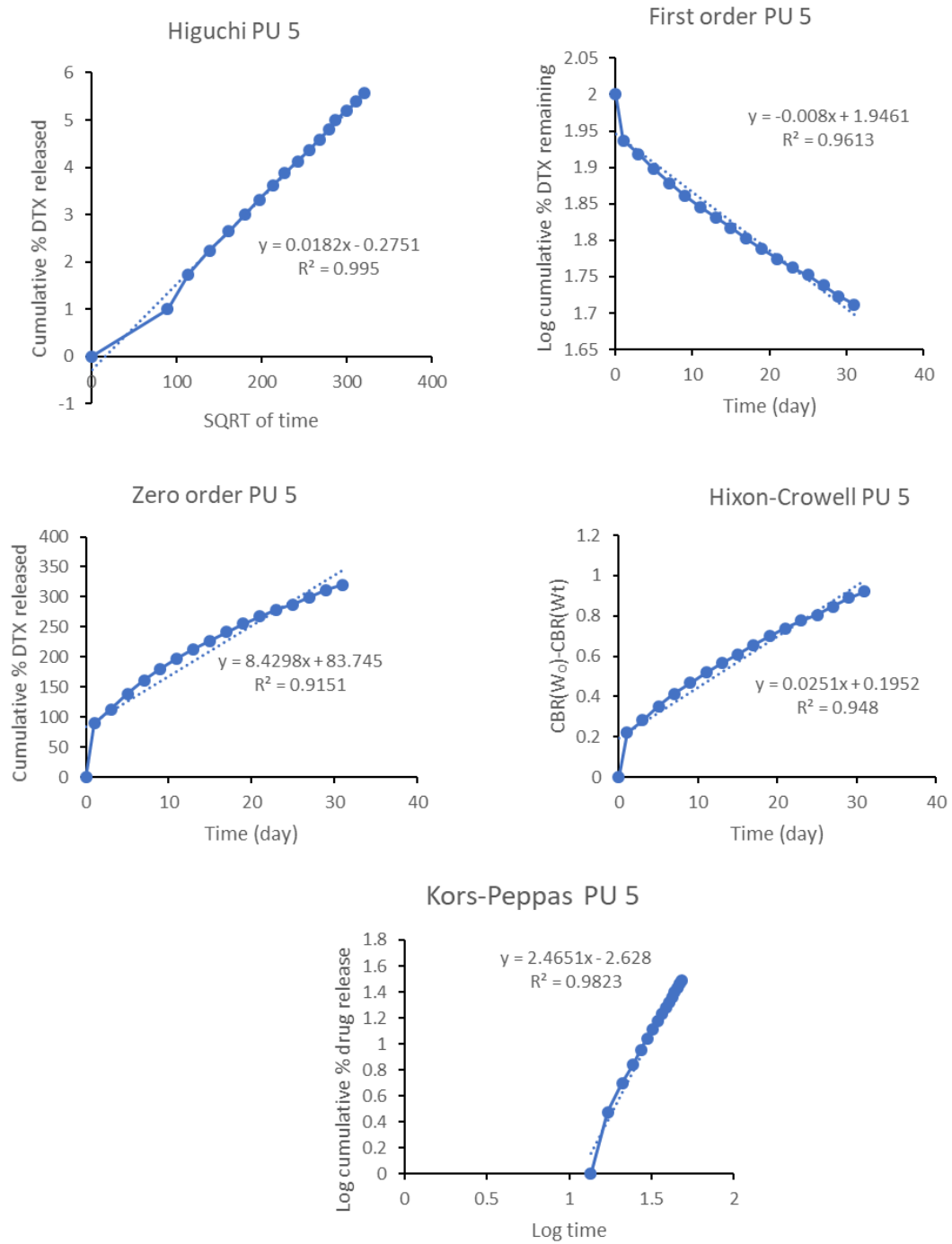


Figure S4. PU₅ in-vitro release data to Higuchi, first order, zero-order, Hixon and Kors-Peppas kinetics models.

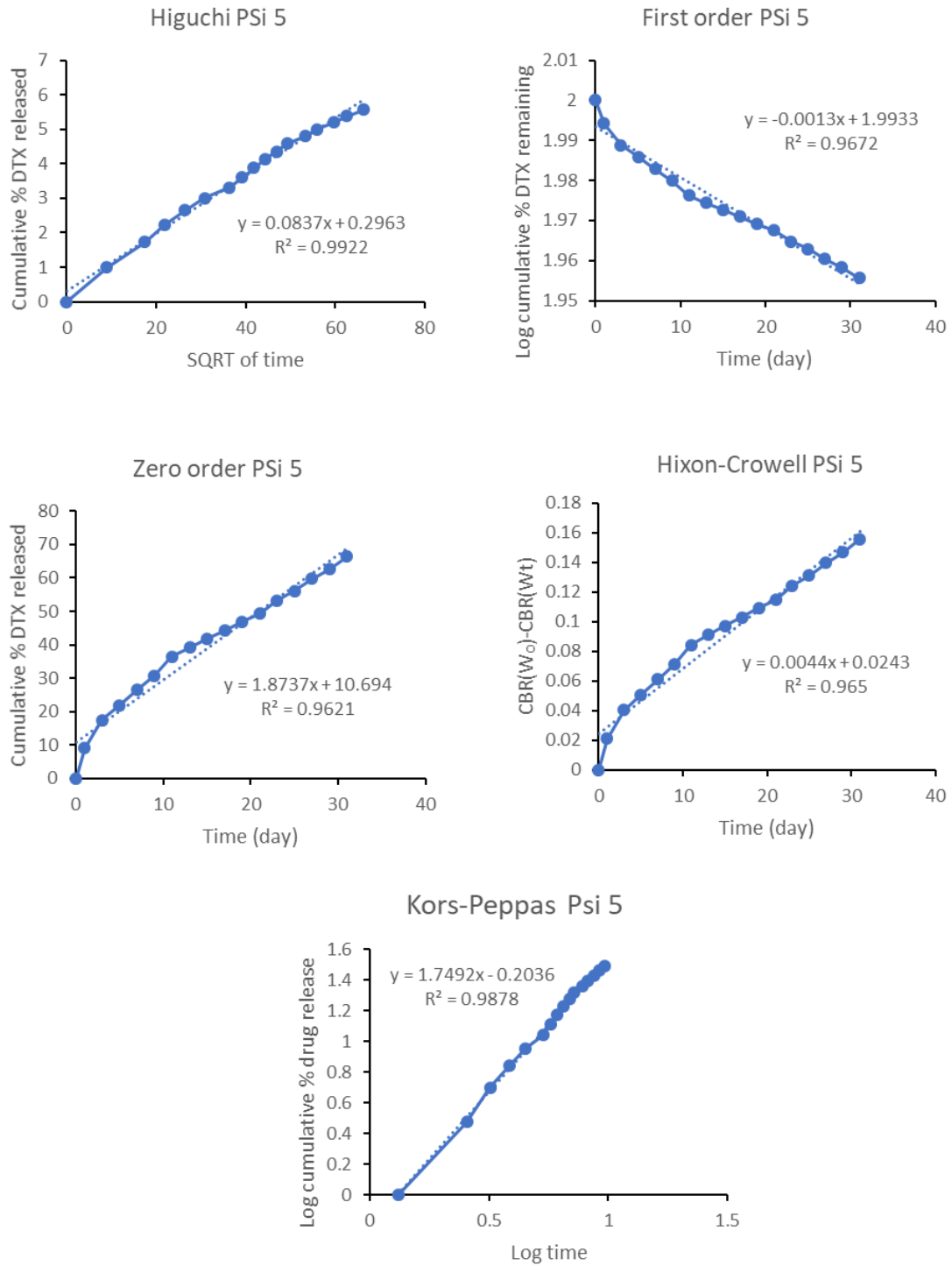


Figure S5. Psi ₅ in-vitro release data to Higuchi, first order, zero-order, Hixon and Kors-peppas kinetics models.

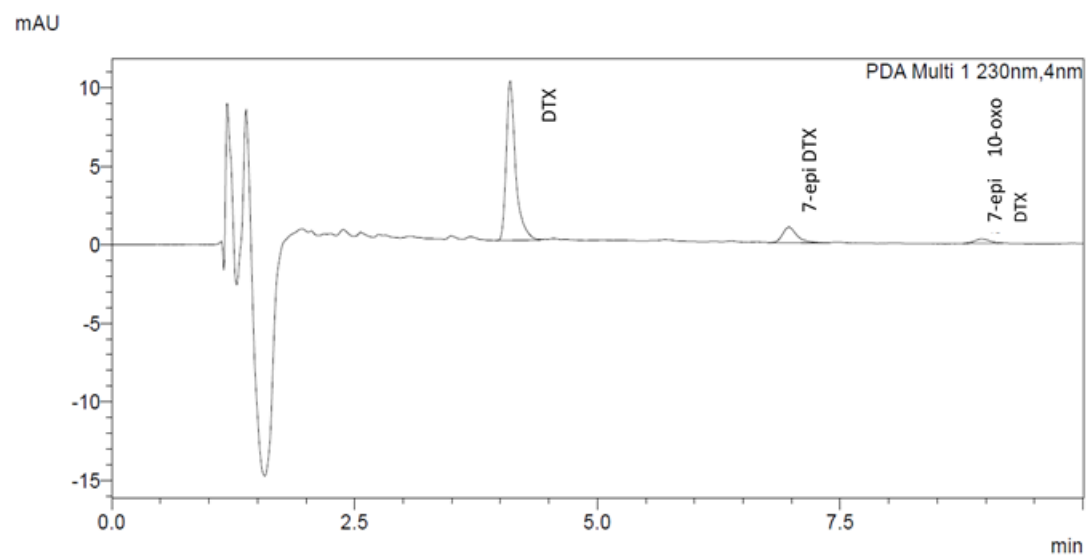


Figure S6. HPLC chromatogram of the degradation studies in presence of release media.