

Supplementary Materials: Development of Amphotericin B micellar formulations based on copolymers of poly(ethylene glycol) and poly(ϵ -caprolactone) conjugated with retinol

Yeimy J. Rodriguez, Luis F. Quejada, Jean C. Villamil, Yolima Baena, Claudia M. Parra-Giraldo and Leon D. Perez.

Table S1. Release models [1].

Model	Equation	Features
Order zero	$Q_t = Q_0 + k_0 t$	The release is given as a function of time at a constant rate, independent of the concentration of the drug.
Order one	$\ln Q_t = \ln Q_0 - k_1 t$	The released amount is proportional to the quantity of drug that remains in the matrix system; therefore, it tends to decrease as a function of time
Higuchi	$Q_t = k_H t^{1/2}$	The release is directly proportional to the square root of time
Korsmeyer-Peppas	$\frac{M_t}{M_\infty} = k_{kp} t^n$	Depending on the value of n it is possible to establish the release mechanism (for a sphere): Fickian diffusion: $n = 0.43$ Anomalous transport: $0.43 < n < 0.85$ Order zero: $n = 1.0$ Transport type II: $n > 0.85$

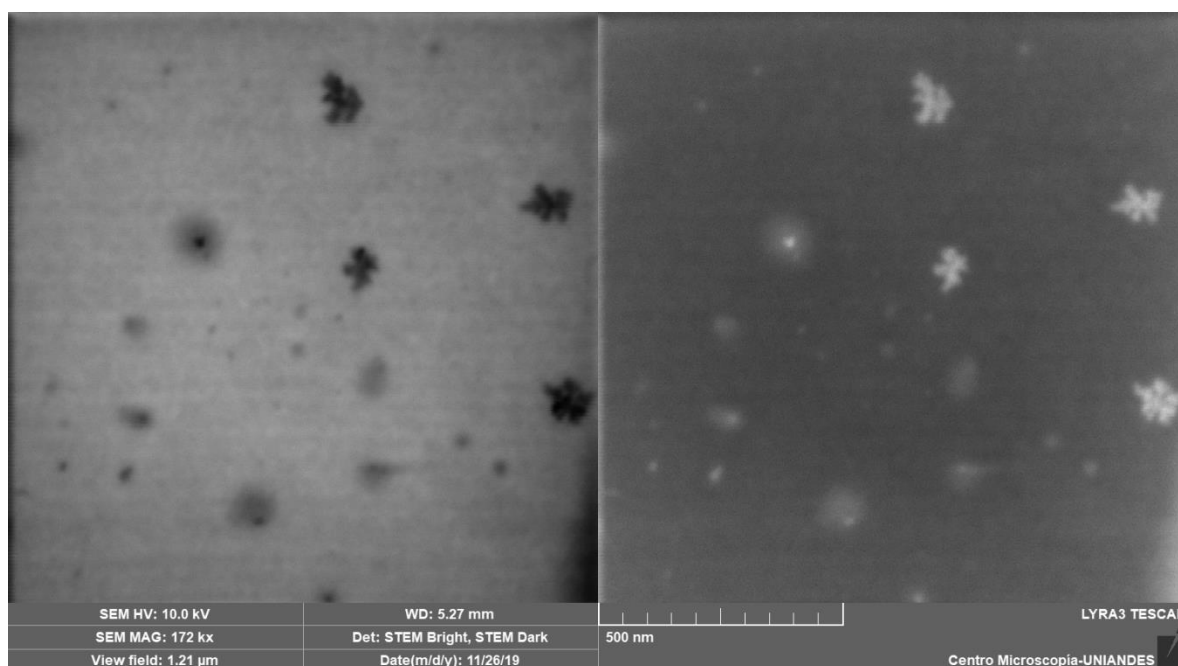


Figure S2. TEM image of micellar dispersion of sample AmB@ABA-RET showing the presence of spherical nanoparticles.

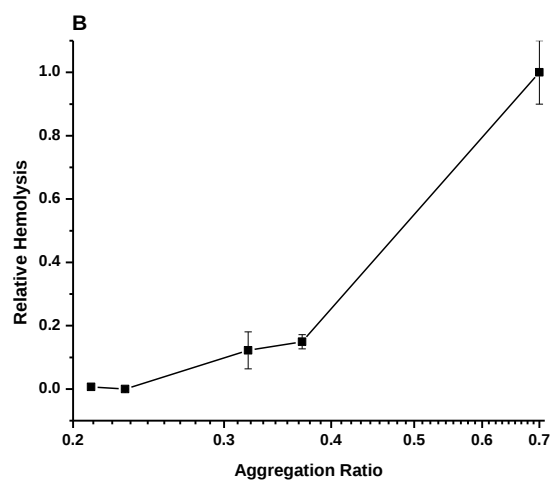


Figure S3. Plot of relative haemolysis of each formulation at the concentration of 3.8 $\mu\text{g/mL}$ versus its corresponding aggregation ratio value listed in Table 5.

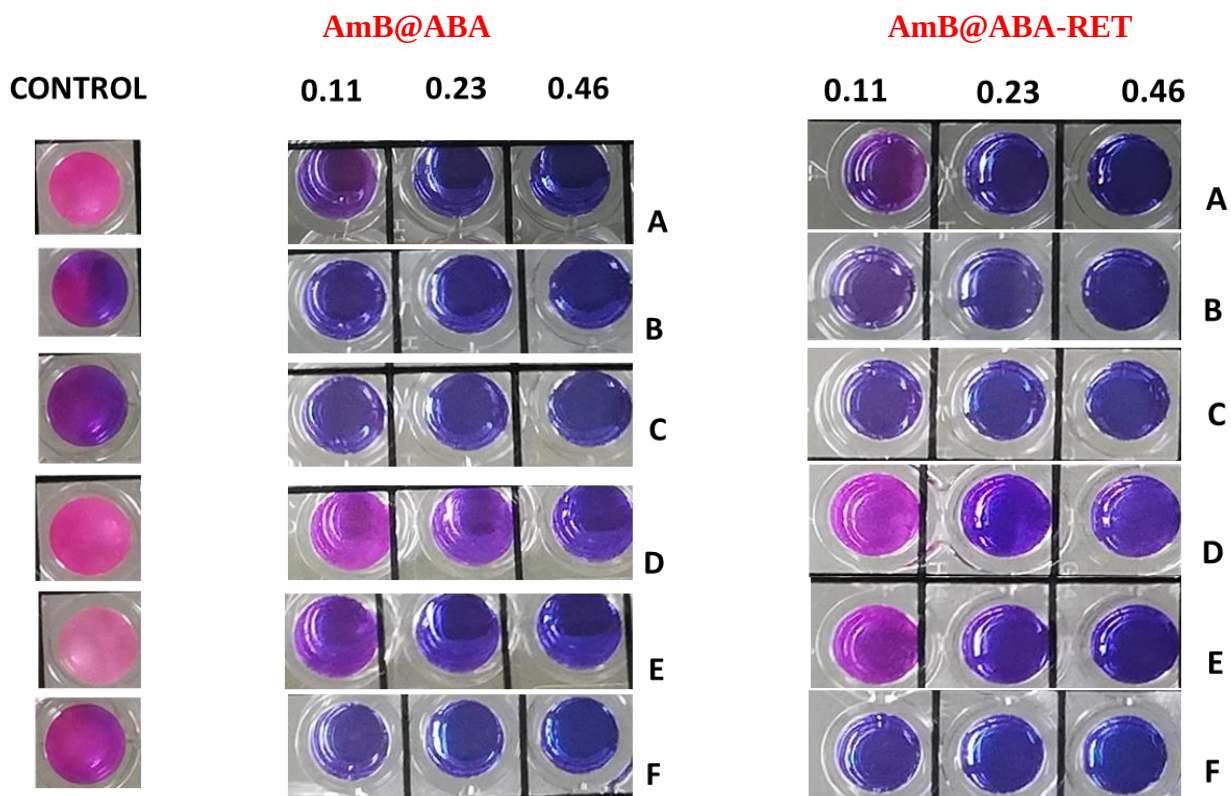


Figure S4. Determination of MIC employing resazurin. In the wells: (A) *C. krusei* ATCC 6258; (B) *C. parapsilosis* ATCC 22019; (C) *C. glabrata* ATCC 2001 (D) *C. auris* HUSI 435; (E) *C. tropicalis* ATCC 1018; (F) *C. parapsilosis* HUSI 75

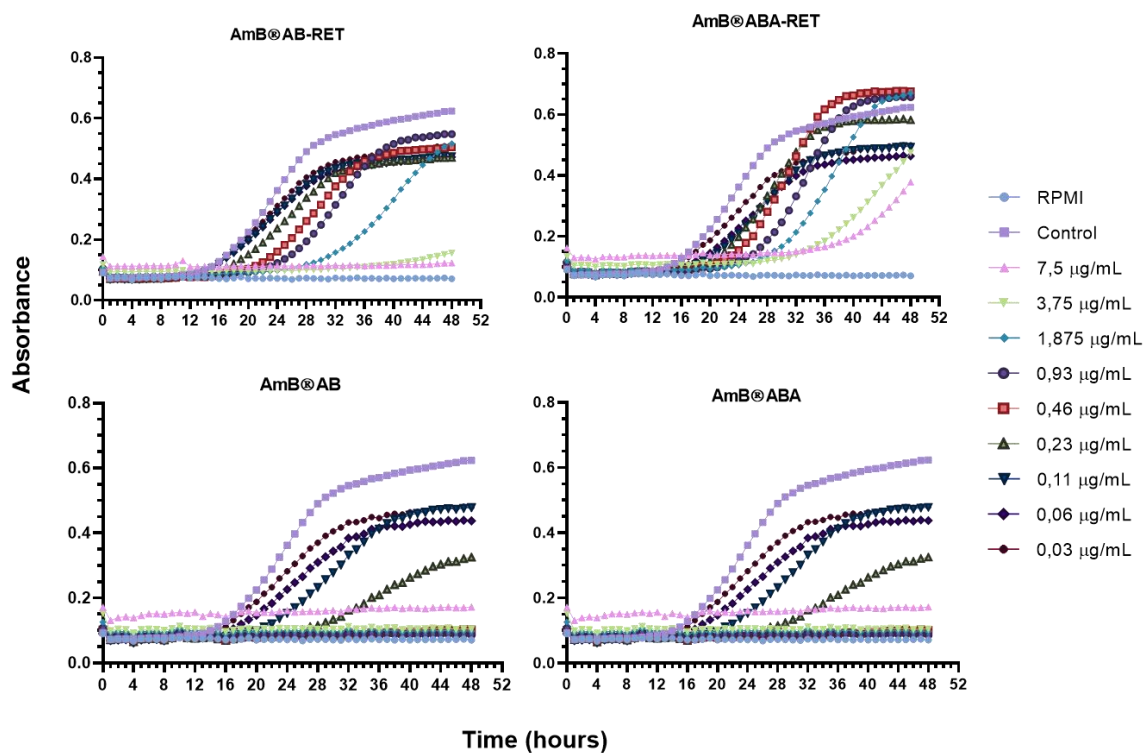


Figure S5. Growing curves of *C. auris* 537 in the presence of different concentrations of AmB@PMs.

References

1. Barzegar-Jalali, M.; Adibkia, K.; Valizadeh, H.; Shadbad, M. R. S.; Nokhodchi, A.; Omid, Y.; Mohammadi, G.; Nezhadi, S. H.; Hasan, M., Kinetic analysis of drug release from nanoparticles. *Journal of Pharmacy and Pharmaceutical Sciences* **2008**, *11* (1), 167–177.
2. Son, G.-H.; Lee, B.-J.; Cho, C.-W., Mechanisms of drug release from advanced drug formulations such as polymeric-based drug-delivery systems and lipid nanoparticles. *Journal of Pharmaceutical Investigation* **2017**, *47* (4), 287–296.