

Quantification methods of *Candida albicans* are independent irrespective of fungal morphology

Amanda B Soares¹, Maria C De Albuquerque¹, Leticia M Rosa¹, Marlise I Klein², Ana C Pavarina¹, Paula A Barbugli¹, Livia N Dovigo^{3,4} and Ewerton G de O. Mima*

¹Laboratory of Applied Microbiology, Department of Dental Materials and Prosthodontics, School of Dentistry, São Paulo State University (UNESP), Araraquara, Araraquara, São Paulo, Brazil. ²Department of Oral Diagnosis, Piracicaba Dental School, State University of Campinas (UNICAMP), Piracicaba, São Paulo, Brazil. ³Department of Social Dentistry, School of Dentistry, São Paulo State University (UNESP), Araraquara, Araraquara, São Paulo, Brazil. ⁴Rua Humaitá, Centro, SP, 1680, 14801-903, Araraquara, Brazil. ZIP

*Corresponding Author:

Ewerton G de O. Mima, Prof. Dr., Rua Humaitá, 1680, Centro, Araraquara, SP, Brazil, ZIP: 14801-903; Phone: +55-16-3301-6557; Fax: +55-16-3301-6406; E-mail: ewerton.mima@unesp.br

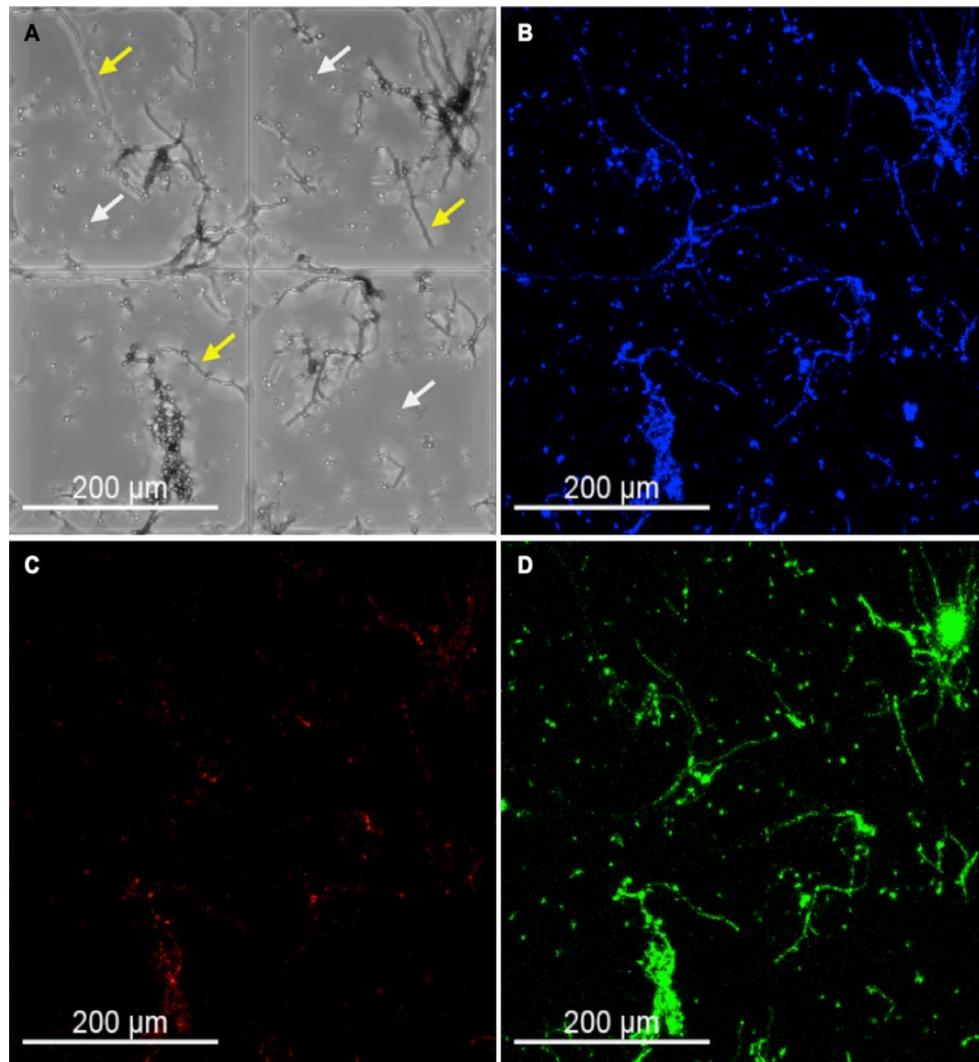
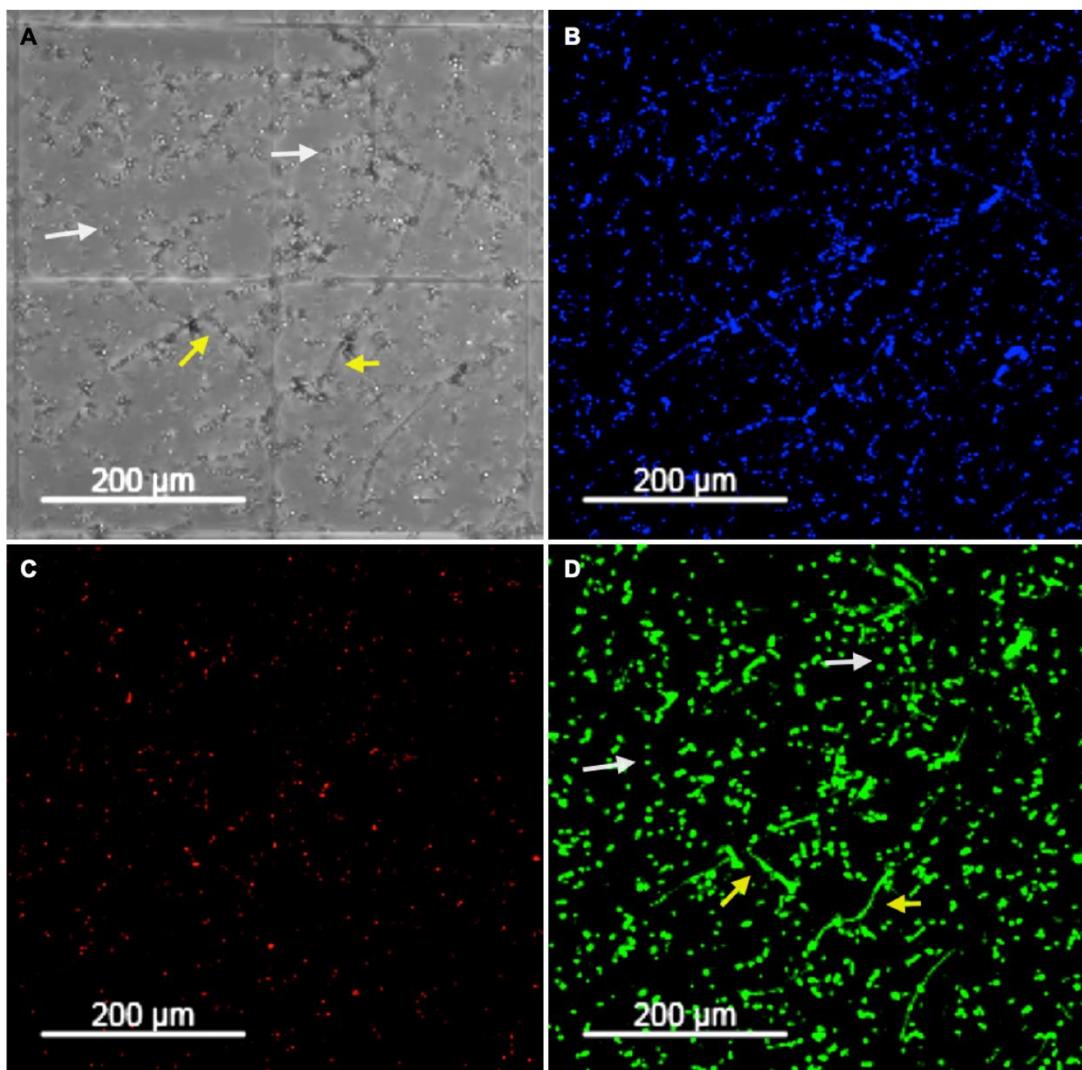
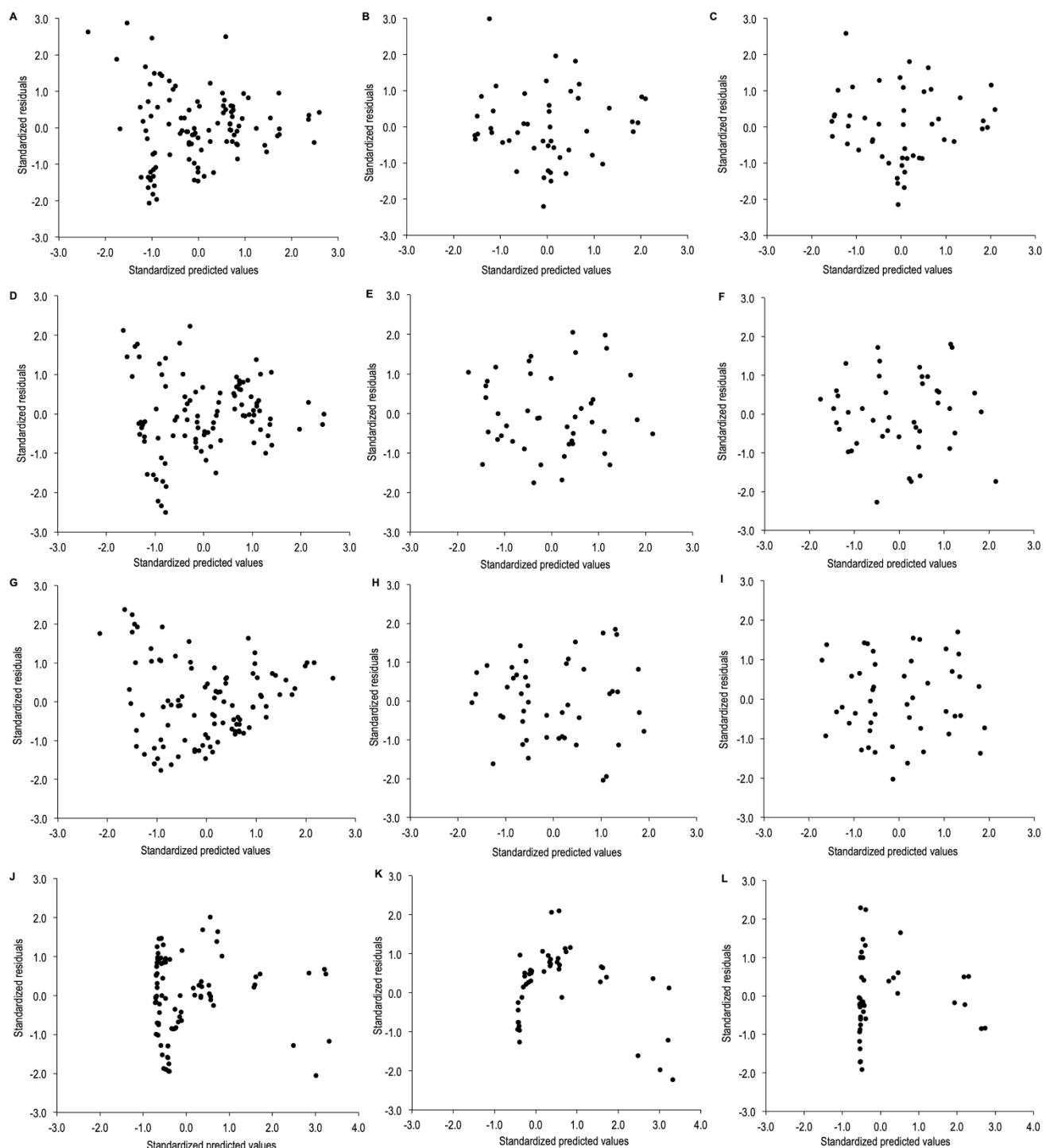


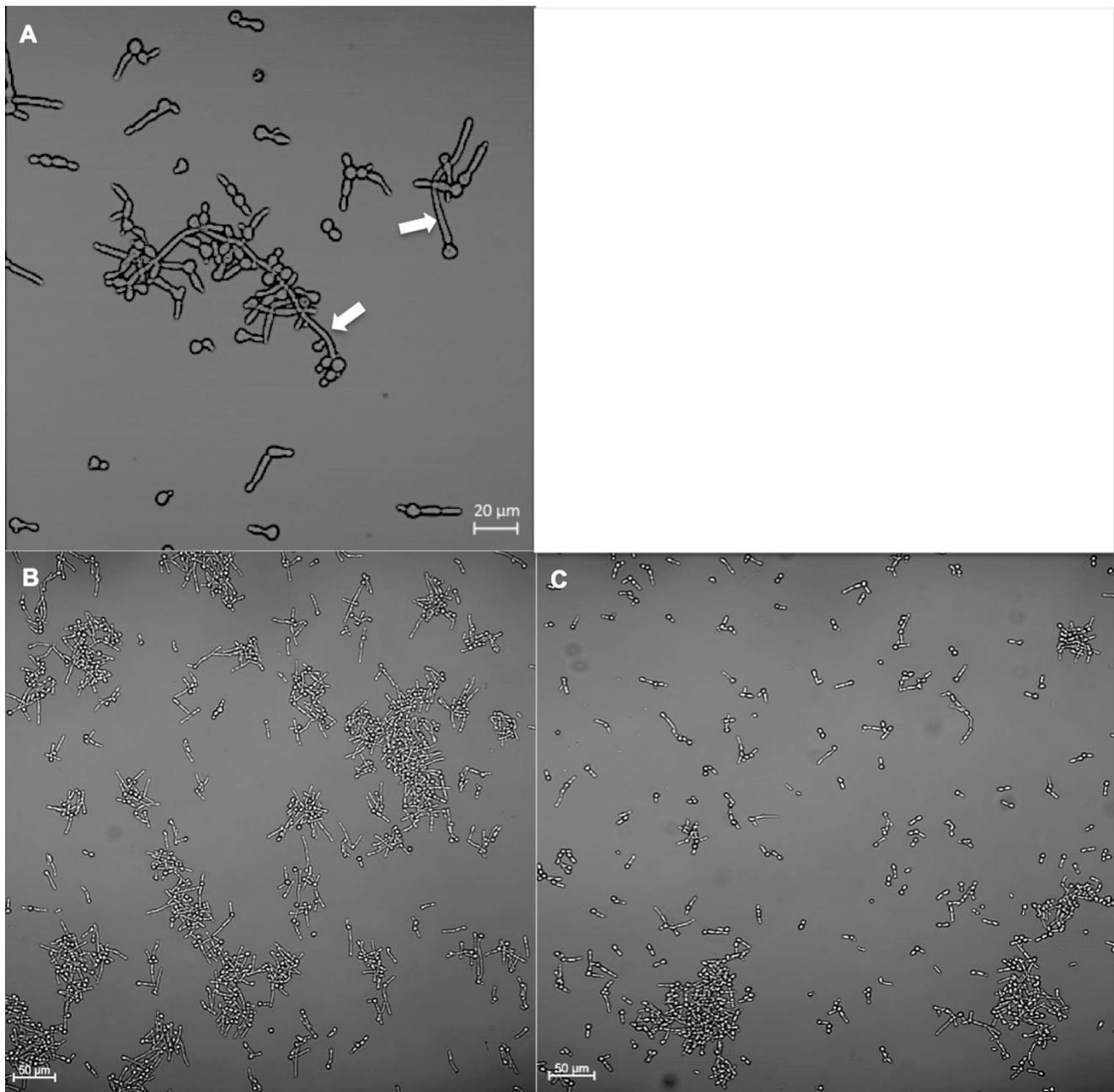
Figure S1. Confocal images obtained for filament growth of *C. albicans* SC5314 treated with fluconazole. Bright field (A) and fluorescence mode for Hoescht (blue, B), propidium iodide (red, C), and concanavalin A - Alexa Fluor 488 conjugate (green, D). White arrows show yeast cells, and yellow arrows show filaments.



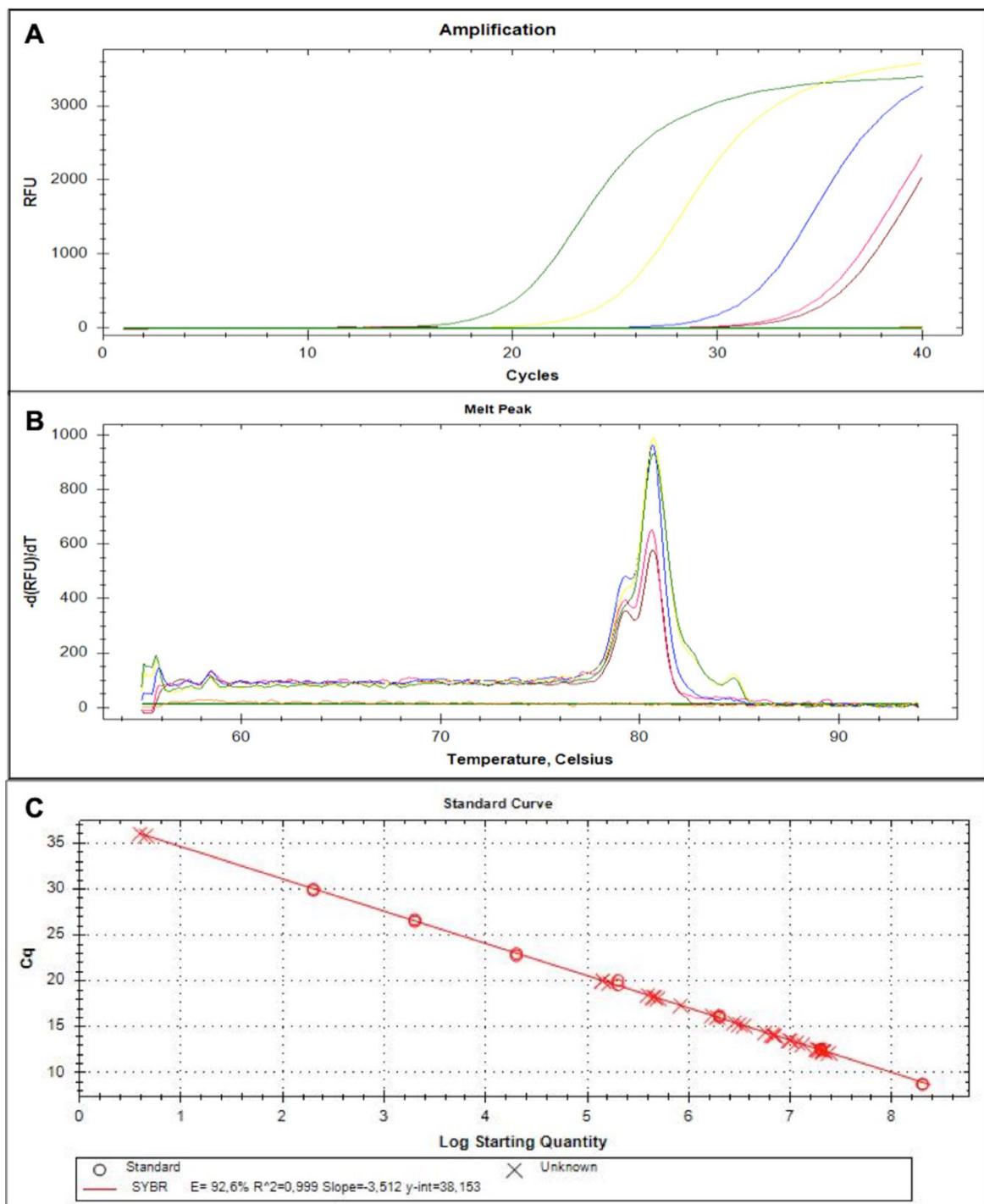
Supplemental Figure S2: Confocal images obtained for biofilm growth of *C. albicans* treated with fluconazole. Bright field (A) and fluorescence mode for Hoescht (blue, B), propidium iodide (red, C), and concanavalin A - Alexa Fluor 488 conjugate (green, D). White arrows show yeast cells, and yellow arrows show filaments.



Supplemental Figure S3: Residual-versus-predicted plots from data obtained from yeasts (A-C), filaments (D-F), and biofilms (G-L) to analyze the assumptions of linearity and homocedasticity of linear regression between the methods of cells/mL and CFU/mL (A, D, and G), vPCR and cells/mL (B, E, and H), vPCR and CFU/mL (C, F, and I), XTT and cells/mL (J), XTT and CFU/mL (K), and XTT and vPCR (L). Assumption of linearity is met when the dots are symmetrically distributed around the horizontal center line of zero (E, F, H, and I). A bowed pattern or non-rectangular shape indicate violation of linearity (A-D, G, J-L). The conical shape (A, D, and G) also indicate violation of homocedasticity (heterocedasticity).



Supplemental Figure S4: *C. albicans* (SC5314) growth in different conditions. True hyphae (arrows) observed after starvation in NaCl for 24 h followed by incubation in RPMI at 30 °C for 8 h (A). Filamentation observed after 6 h of growth in RPMI without serum (B) and (C) with serum at 10%.



Supplemental Figure S5: Amplification plot of *C. albicans* (SC5314) grown as filament, green: undiluted sample, yellow, blue, and pink: diluted samples at 10^{-1} , 10^{-2} , and 10^{-3} , respectively, brown: EMA control. (A) Melting curve after vPCR (B). Standard curve of *C. albicans* DNA (circles) after vPCR.