

# CLSI Biofilm Symposium

21 Jan 2012

# Background

- In ~1990 we found ourselves able to do reproducible for antifungal susceptibility testing
  - Although we initially had no certainty about what it meant, the ability to generate data across multiple labs was ultimately the key to unlocking the puzzle.
  - There were fits and starts along the way, the best method needed a bit of tweaking before it emerged, and we don't have all problems solved
  - But as a consequence of taking that first step we do now have breakpoints for *Candida* and the major anti-candidal drugs.

# How we got there

- Early 1980s
  - We had methods, but they varied wildly
  - Three labs, three drugs, three methods<sup>1</sup>
    - By MIC, the methods produced the same isolate rank order
    - That is, the lowest and highest MIC isolates were the same
    - But, the numerical MICs differed, however, by 50,000-fold
    - Yes, that's  $5 \times 10^4$ -fold
- Late 1980s
  - In the run up to the M27 method, CLSI (NCCLS) standardized endpoints, inoculum size, inoculum preparation, incubation time & temperature, medium<sup>2</sup>
  - Inter-lab variability → 1- to 2-fold

<sup>1</sup>Galgiani JN, Reiser J, Brass C, Espinel-Ingroff A, Gordon MA, Kerkering TM. Comparison of relative susceptibilities of Candida species to three antifungal agents as determined by unstandardized methods. Antimicrob. Agents Chemother. 1987; 31:1343-1347.

<sup>2</sup>Rex JH, Pfaller MA, Rinaldi MG, Polak A, Galgiani JN. Antifungal susceptibility testing. Clin. Microbiol. Rev. 1993; 6:367-381.

# Thesis

- Are we in the early 1980s for biofilms?
  - Is the lack of an method, even an imperfect method (or perhaps more than one method), preventing us from making progress?
  - Might a CLSI document catalyze the entire area?
- To address this, we will
  - Hear talks on biofilms from the bacterial, fungal, and Industry viewpoints
  - And then debate a set of questions...

# Agenda

- 4.00-4.05p: Housekeeping
  - Introduction, overview, agenda review
- 4:05-4.35p: Dr. Robin Patel
  - Relevance of susceptibility testing for bacterial biofilms
- 4.35-5.05p: Dr. Mahmoud Ghannoum
  - Relevance of susceptibility testing for fungal biofilms
- 5.05-5.35p: Dr. Peter Warn
  - Biofilm susceptibility testing: Relevance and concerns for product development
- 5.35p-6.30p: Discussion
  - See next slide

# Points for discussion

1. Should CLSI try to develop a standardized biofilm-focused susceptibility testing method?
2. If No, what data would be the trigger for making such work feasible and desirable?
3. If Yes, should this focus on bacteria, fungi, or both as an initial goal?
4. If Yes, who would be interested?
  - This document would be (roughly) a spin-out of the Topical Working Group but would need to be convened following CLSI principles for creating a committee to develop the document.