



CD101: A Novel Echinocandin

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October 8, 2017

Disclosures

Dr. Sandison is an employee of and stockholder in Cidara Therapeutics

Cidara's Platforms

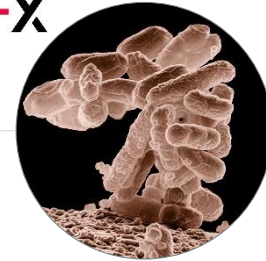
CD101 IV Echinocandin Antifungal



Candidemia / invasive candidiasis
Prophylaxis

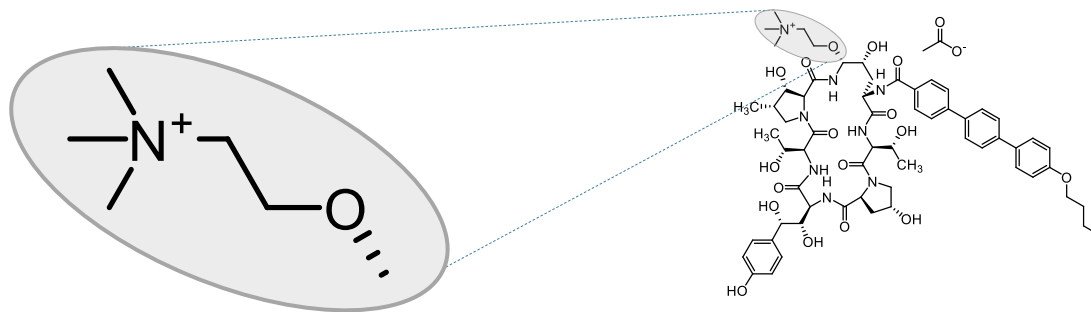
Cloudbreak™ Immunotherapy

Powered by **CARB-X**



MDR Gram-negative bacteria

CD101: A Novel Echinocandin

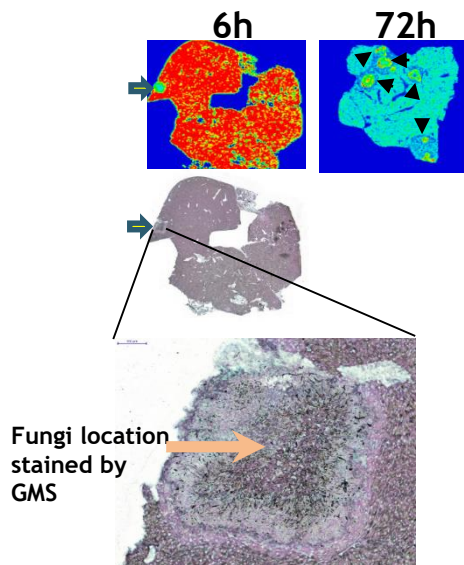


Structural modification yields improved chemical & biological properties

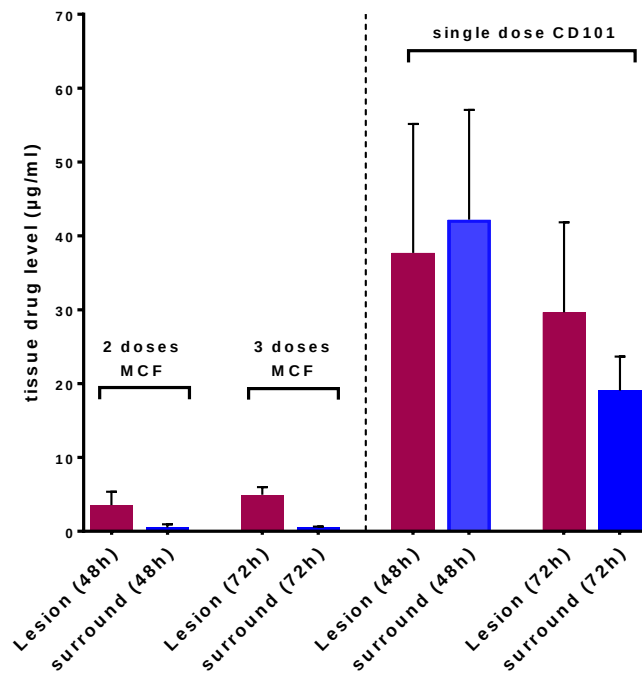
- Prolongs PK Once weekly dosing
- Allows high exposures Treats less susceptible pathogens
- Eliminates toxic degradation products Improved safety & dose range
- Enables multiple formulations Intravenous & subcutaneous

CD101 Penetrates and Accumulates at High Levels at the Site of Infection

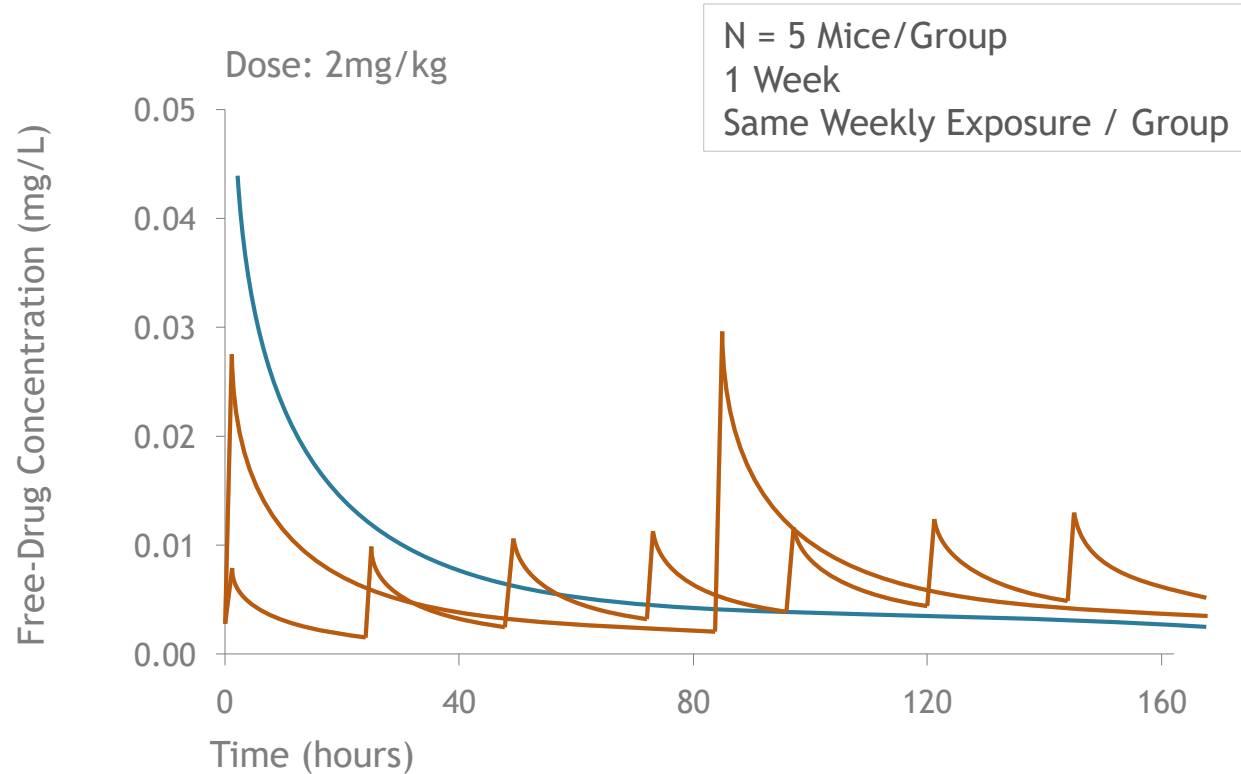
Drug distribution in liver after single dose CD101 at 20 mg/kg determined by MALDI MS Imaging



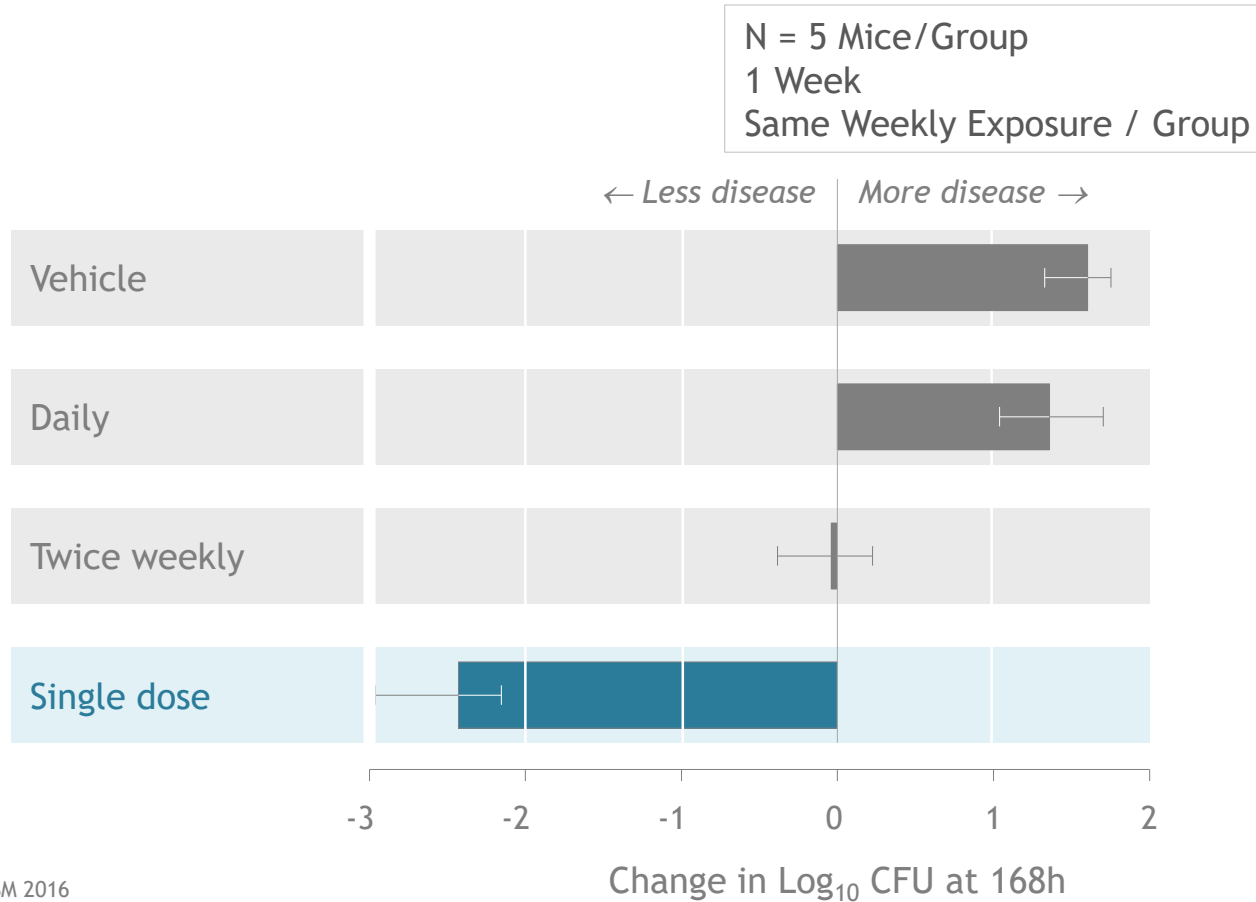
Multidoses Micafungin vs. single dose CD101



Dose Fractionation Study of CD101 in Mouse Candidiasis Model



Front Loading Echinocandins Improves Efficacy



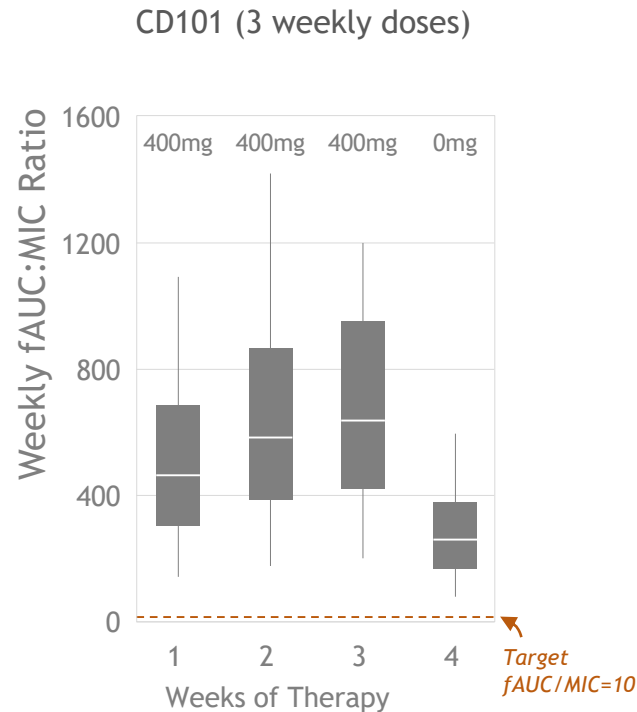
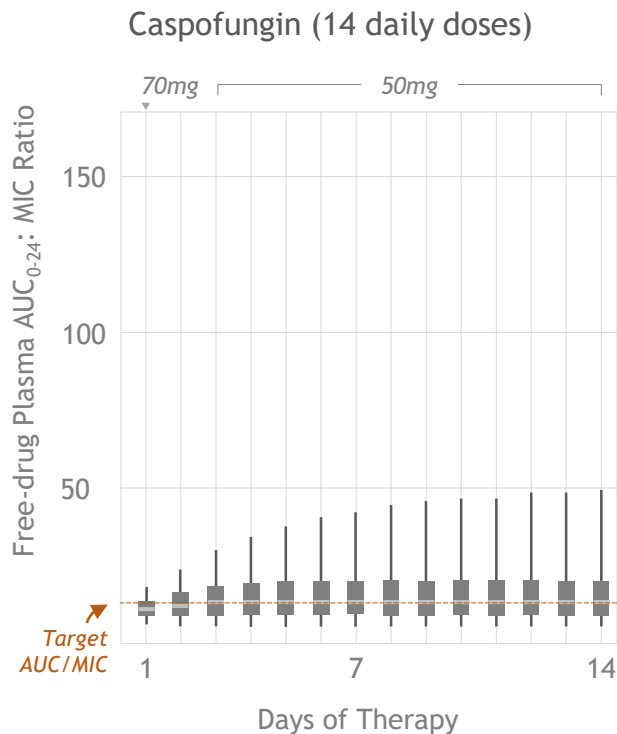
CD101: Improved Target Attainment

Percent probabilities of PK-PD target attainment in *Candida* spp.

≥90% probability of target attainment		CD101 (400mg, weekly for 3 weeks)			Caspofungin (70mg 1xq24; 50mg 13xq24h)	
MIC mg/L		<i>C. albicans</i>	<i>C. glabrata</i>	<i>C. auris</i>	<i>C. albicans</i>	<i>C. glabrata</i>
Rows represent different strains of <i>Candida</i> ▼	0.008	100.0	100.0	100.0	100.0	100.0
	0.015	100.0	100.0	100.0	100.0	100.0
	0.030	100.0	100.0	100.0	MIC ₉₀ 100.0	100.0
	0.060	MIC ₉₀ 100.0	100.0	100.0	97.8	100.0
	0.120	100.0	100.0	100.0	50.1	97.2
	0.250	98.0	100.0	100.0	0.40	40.1
	0.500	19.3	100.0	100.0	0.0	0.2
	1.000	0.0	100.0	100.0	0.0	0.0
	2.000	0.0	100.0	98.7		
	4.000	0.0	91.1	22.8		
8.000	0.0	4.4	0.0			

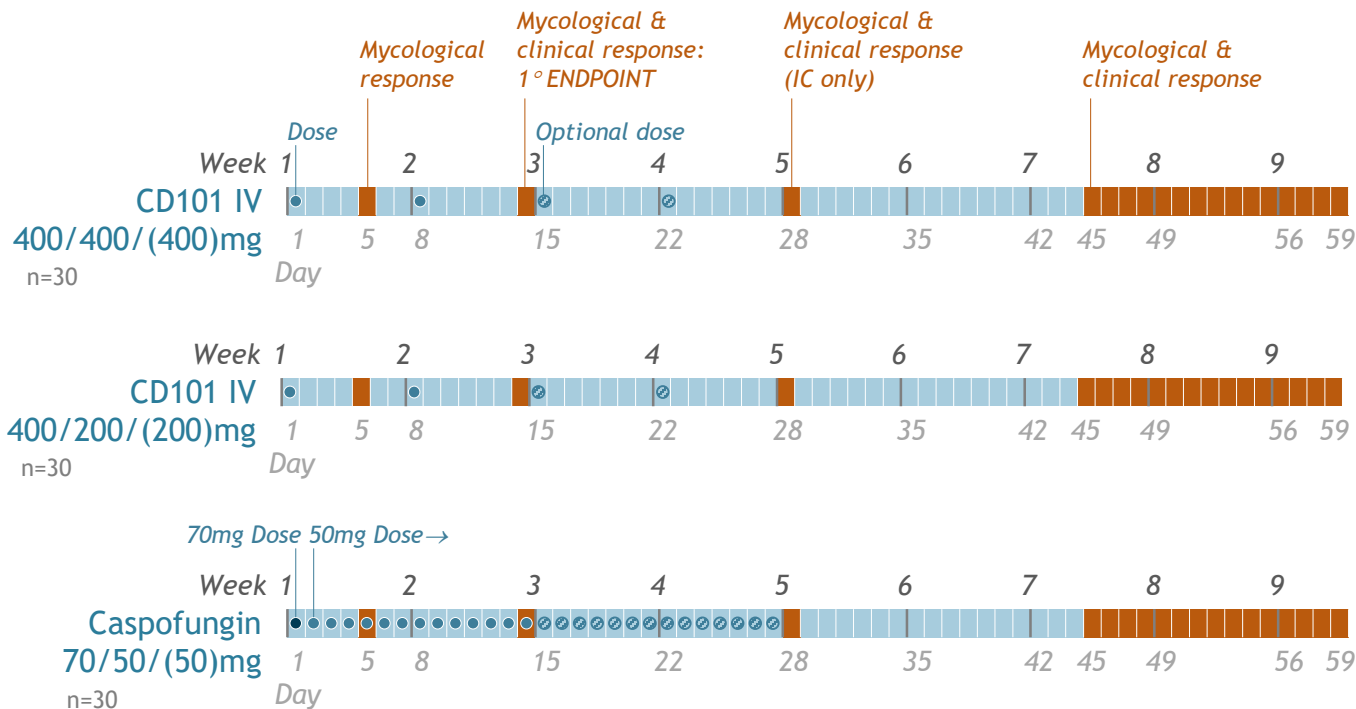
CD101 PK/PD: Exposure Drives Better Target Attainment

especially when facing less susceptible pathogens

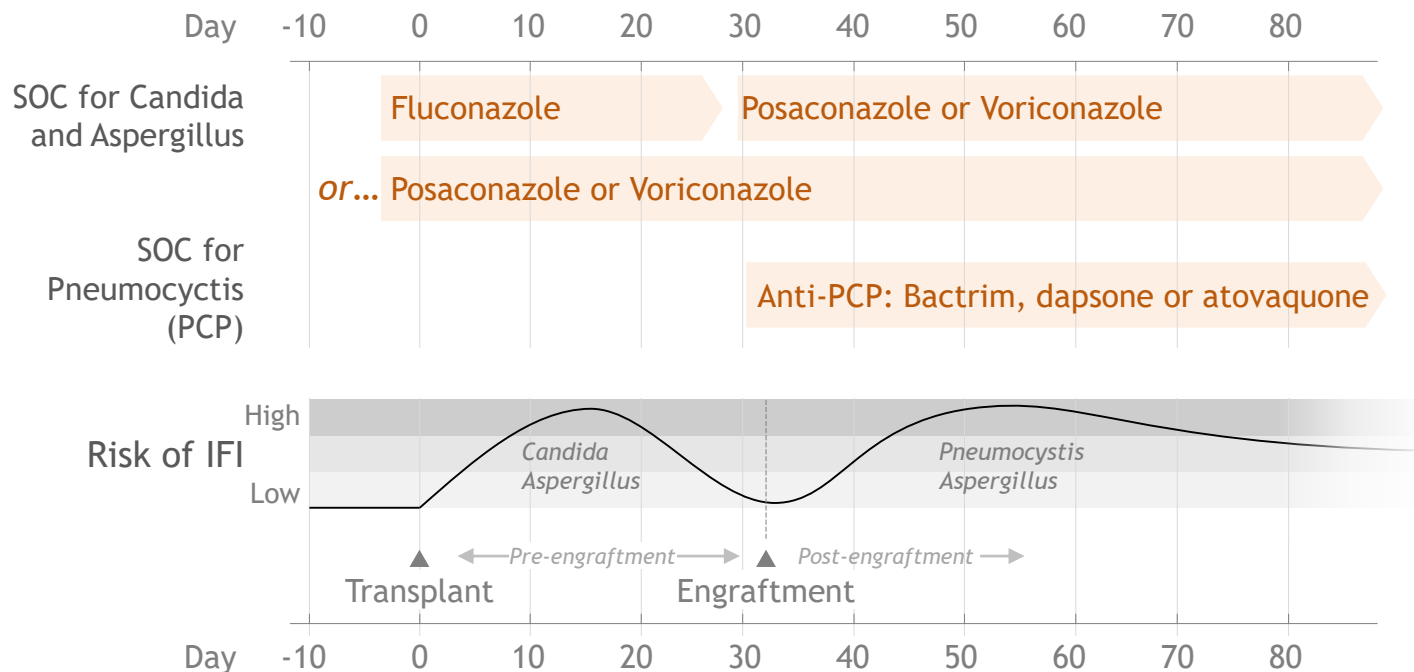


MIC=0.25 for caspofungin, MIC=0.12 for CD101
Bader. Emerging Candida glabrata Resistance and Echinocandin Dosing: A Call to Arms! IDWeek 2016

STRIVE trial: Phase 2 Candidemia & Invasive Candidiasis Study Design



Current Prophylaxis Requires Multiple Drugs For Coverage



Aspergillus prophylaxis with CD101- 100% success at humanized doses

STUDY DESIGN

6 mice per arm

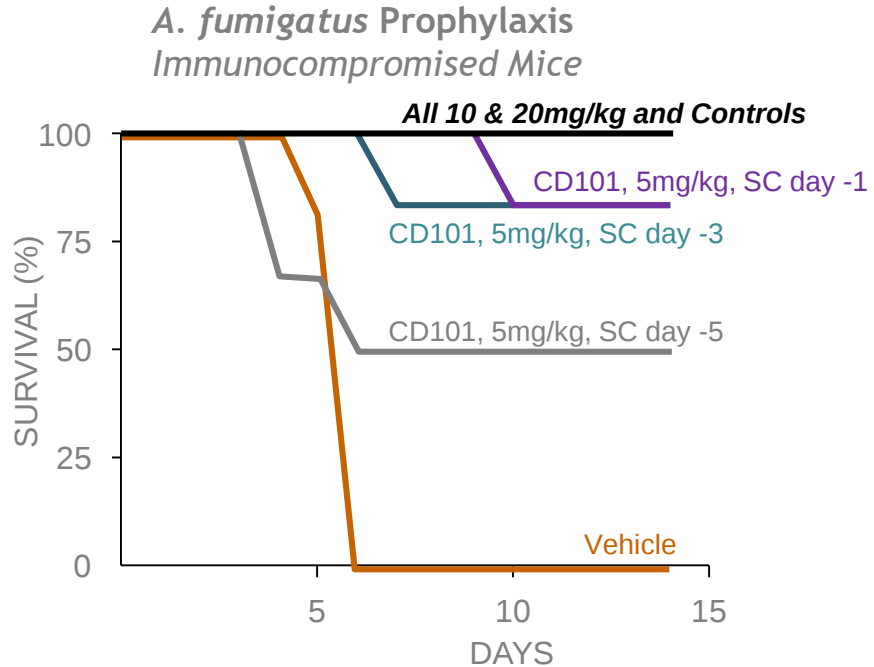
Controls: Amphotericin B control 3 mg/kg; CD101 at 3 mg/kg; one hour after infection

9 CD101 groups at 5, 10 and 20 mg/kg as prophylaxis was once at Day -5, -3 or -1 before infection

All animals immunosuppressed

Day 0, infected with *A. fumigatus*

10-20 mg/kg $\approx$ expected humanized dose
Mice clear CD101 2-3 fold faster than humans.



CD101 Shows Equivalent Efficacy to TMP/SMX in PCP Prophylaxis Mouse Model

STUDY DESIGN

10 mice per arm

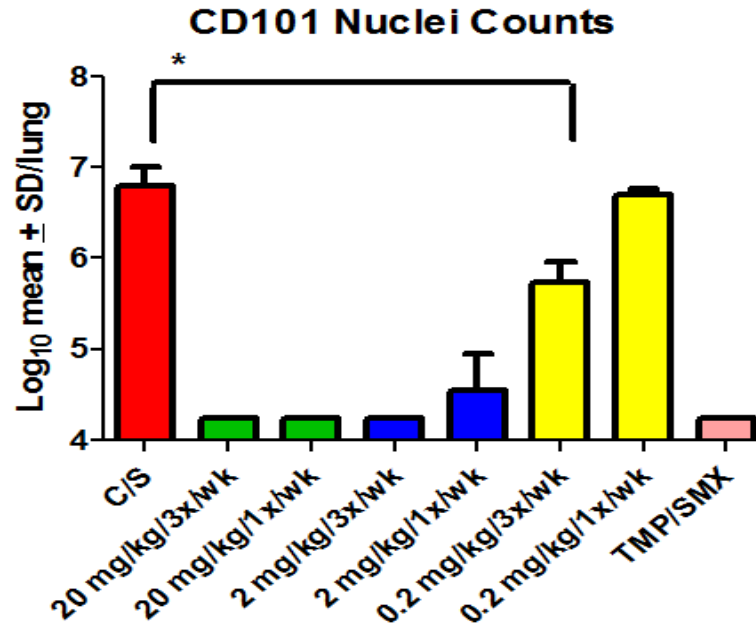
Infected with *P. murina* by intranasal inoculation

Immunosuppression with dexamethasone throughout study

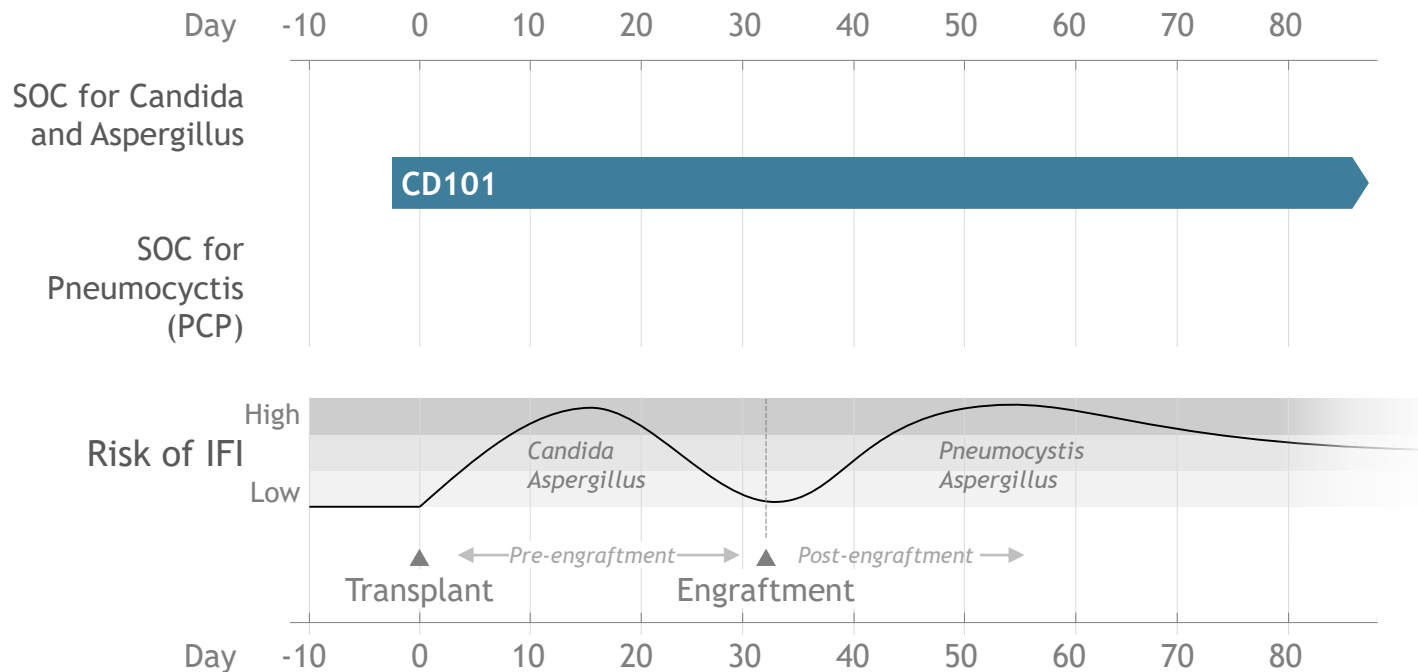
CD101 was administered at the same time the mice were infected

Quantification of PCP from lung

‘Prophylaxis with CD101, which blocked cyst/asci formation, offers a new means to prevent PJP’

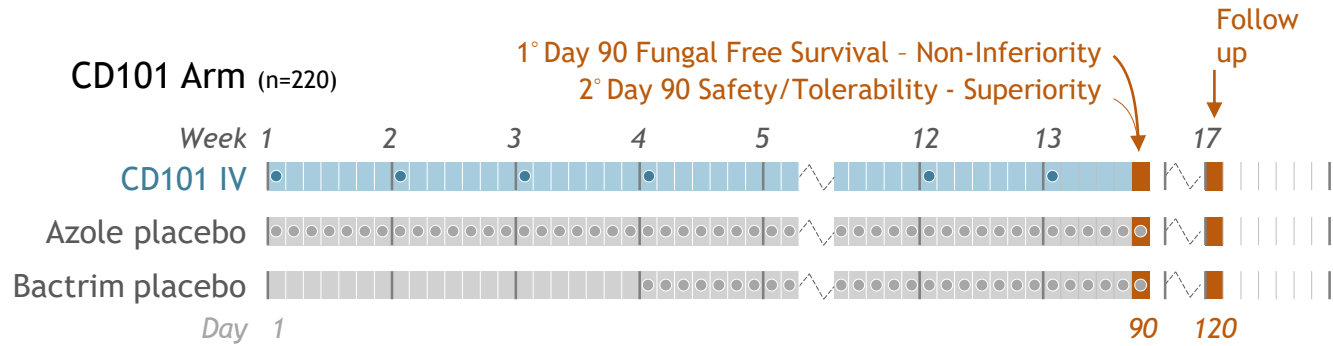


CD101: Simplified Single Drug Paradigm

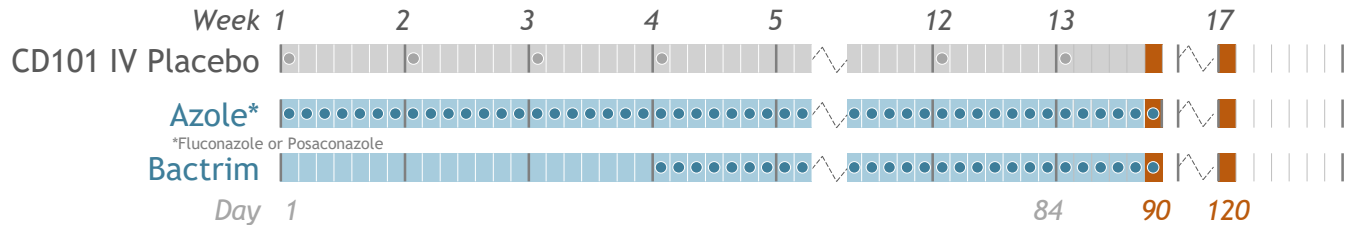


Phase 3 Antifungal Prophylaxis Trial in HSCT Patients

Planned 2018



Comparator Arm (n=220)





Thank You