

1 **Supplemental Tables and Figures.**

2

3 **Supplemental Table ST1. Chemical composition of Anidulafungin loaded**

4 **liposomes (AFG-LLs).**

<b>Compound</b>	<b>µg in each preparation of liposomes</b>	<b>µg / µmole Mol. Wgt.</b>	<b>µmoles total</b>	<b>Moles percent relative to moles of liposomal lipid</b>
DSPC (1,2-distearoyl-sn-glycero-3-phosphocholine)	6516.00	790.00	8.25	50.00
cholesterol	1591.00	387.00	4.11	45.00
mPEG2000-DSPE	2302.10	872.00	<u>2.64</u>	<u>5.00</u>
Total mmoles and moles percent liposomal lipid			15.00	100.00
Anidulafungin (AFG)	1030.00	1140.00	0.90	6.02
Lissamine Rhodamine B 1,2-Dihexadecanoyl-sn-Glycero-3-Phosphoethanolamine, Triethylammonium Salt	400.00	1333.81	0.30	2.00

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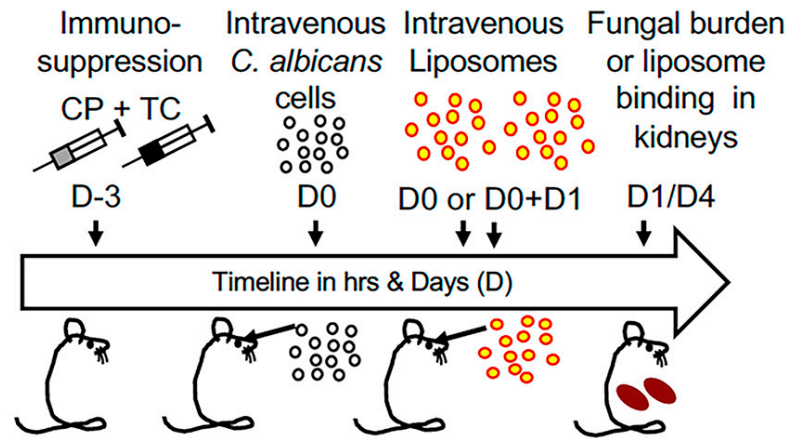
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7 **Supplemental Fig. SF1. Treatment regimens used to assay liposome binding,**  
 8 **fungal burden and mouse survival- immunosuppression, infection, liposome**  
 9 **treatments and endpoints.** A neutropenic mouse model was used to ensure  
 10 reproducible infection by *C. albicans* yeast cells. **A.** The regimen used to assay binding  
 11 of DectiSomes to infection centers in the kidneys as compared to AmB-LLs and the  
 12 impact of DectiSomes on fungal burden as compared to untargeted liposomes or control  
 13 buffer. Liposome binding was assayed on Day 4 (D4) PI and fungal burden was  
 14 determined on D1 PI. **B.** Regimen used to assay mouse survival after treatment with

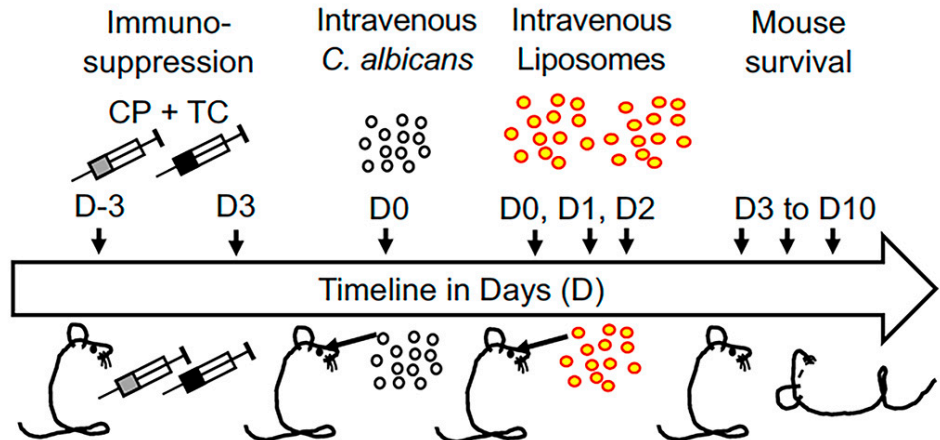
15 DEC1-AmB-LLs, DEC2-AmB-LLs, AmB-LLs or control buffer. The Day(s) (D) of  
 16 treatment are

17 indicated before and  
 18 after the day of  
 19 infection (D0). CP,  
 20 cyclophosphamide.  
 21 TC, triamcinolone.  
 22 Survival was  
 23 monitored until D10.

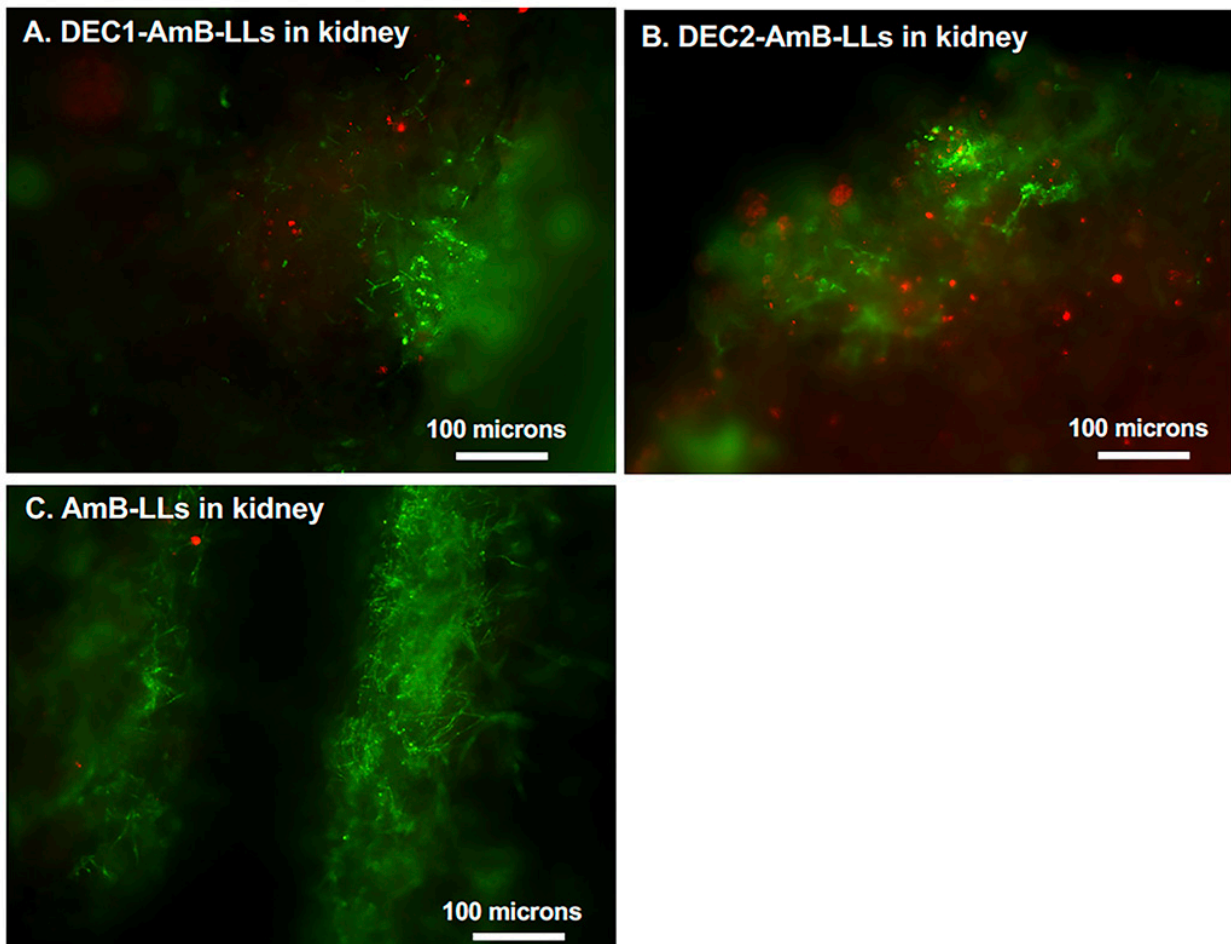
**A. Regimen for assaying liposome binding in the kidneys or fungal burden in the kidneys**



**B. Regimen for assaying the survival of mice with candidiasis**



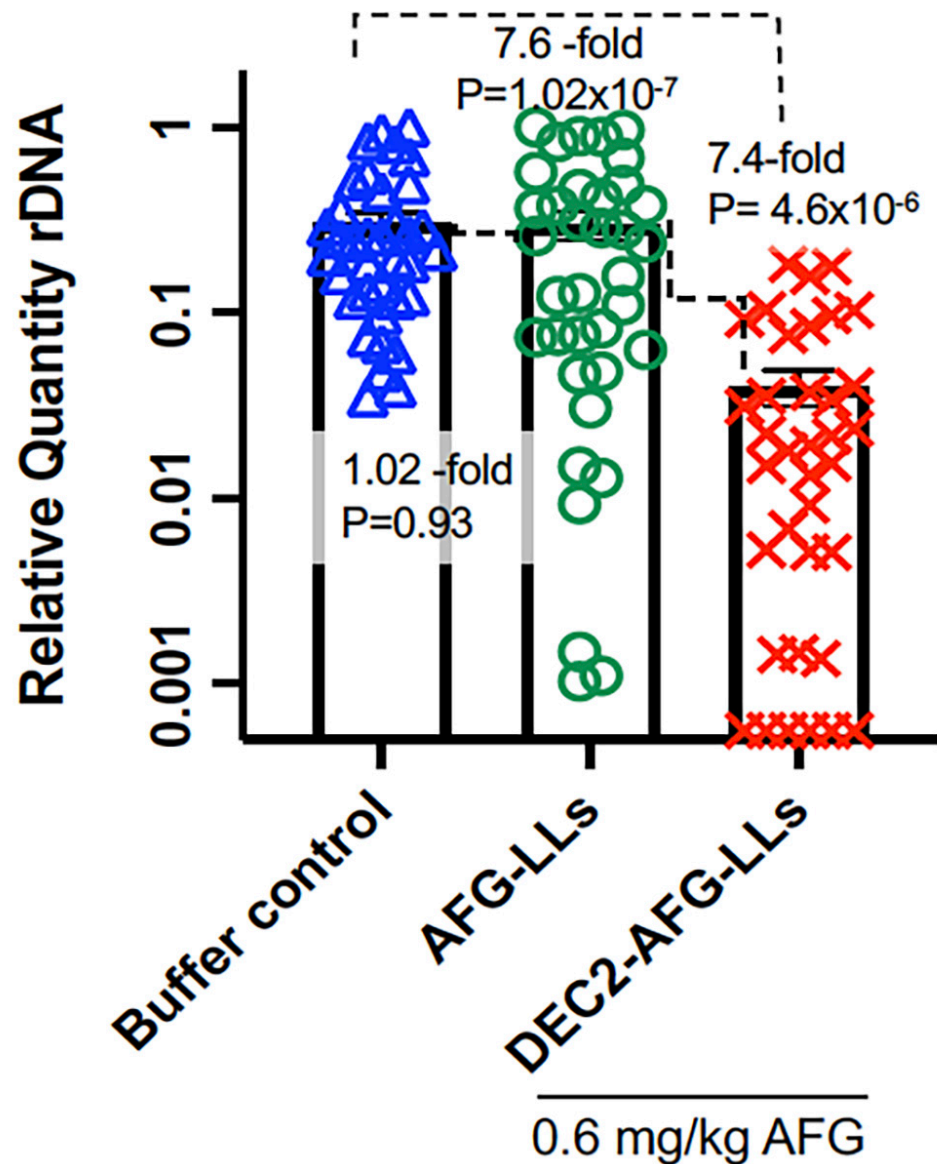
25 **Supplemental Fig. SF2. DectiSomes targeted by Dectin-1 or Dectin-2 and**  
26 **delivered intravenously are concentrated in *C. albicans* infection centers in the**  
27 **mouse kidney.** Replicate images for the experiment illustrated in **Fig. 2** showing the  
28 superior binding of DEC1-AmB-LLs and DEC2-AmB-LLs to *C. albicans* colonies in the  
29 kidneys relative to untargeted AmB-LLs.



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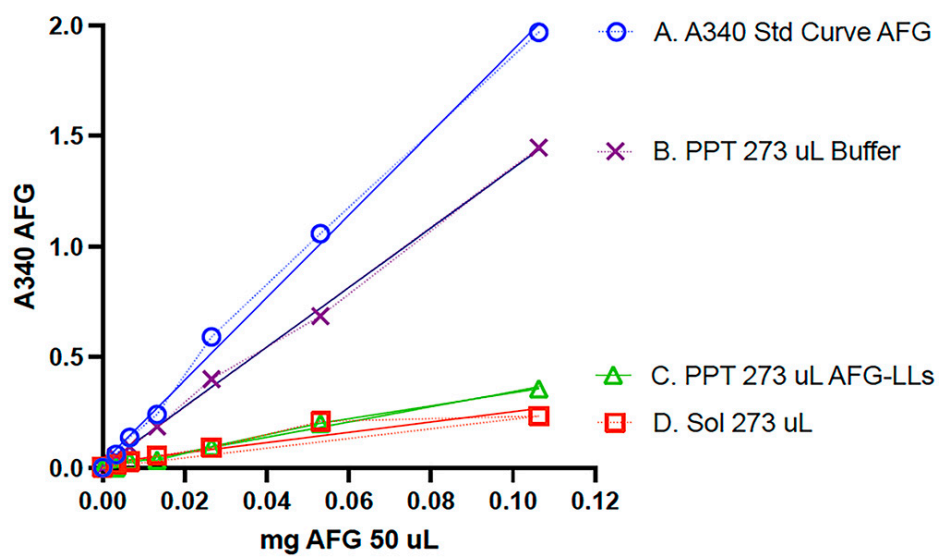
31 Supplemental Fig. SF3. Dectin-2 coated anidulafungin loaded liposomes, DEC2-  
32 AFG-LLs, delivering 0.6 mg/kg AFG were more effective at reducing the burden of  
33 *C. albicans* in the kidneys than untargeted AFG-LLs. Relative Quantity (RQ) of *C.*  
34 *albicans* rDNA was determined by qPCR analysis of DNA isolated from duplicate kidney  
35 samples to those in Fig. 3E, serving as a confirmation of the CFU data.

36



37 **Supplemental Fig. SF4. Experimental data used to quantify the moles percent of**  
 38 **AFG loaded into AFG-LLs.** Light scattering from liposomes prevents a direct  
 39 measurement of the UV absorbance of drugs loaded into liposomes. Hence, we  
 40 estimated the percent of AFG loaded into liposomes by the subtraction of that which  
 41 was not loaded into liposomes as we have done before to estimate the loading of AmB  
 42 (Ambati et al., 2019, mSphere 4:1-15). **A.** Standard curve plotting the absorbance of AFG  
 43 at A340 in a dilution series in a 96 well microtiter plate vs the amount mg amount of  
 44 AFG dissolved in 50 uL of DMSO. When more than 0.12 mg of AFG were examined the  
 45 A340 absorbance values were too high to be read. **B.** When 1.7 mg of AFG was  
 46 tumbled for 3 days in 273 uL of liposome buffer, was 81.3% of the total remained  
 47 insoluble. This was determined by taking the insoluble AFG precipitate and dissolving it  
 48 in 50 uL DMSO and reading A340 for a dilution series. **C.** After incubating liposomes  
 49 and 1.7 mg of AFG together in 273 uL the insoluble AFG was spun down and assayed  
 50 by in a dilution series in 50 uL DMSO. This is the amount of AFG not taken up by  
 51 liposomes and not soluble in the buffer surrounding them. **D.** The amount of AFG that  
 52 remained soluble in 273 uL of liposome buffer was estimated by subtracting the data in  
 53 curve B from that

54 in A.  
 55



56 **Supplemental Fig. SF5. Assays of *C. albicans* microcolonies to determine fungal**  
57 **burden in the kidneys of neutropenic mice with candidiasis than AmB-LLs (an**  
58 **example experiment).** Aliquots of homogenized kidney tissue were diluted into PBS,  
59 plated on YPD agar, incubated 11 hr at 37°C, and microcolonies counted. **A.** A bar plot  
60 compare the average number of CFUs of *C. albicans* for mice treated once with DEC2-  
61 AmB-LLs or AmB-LLs delivering 0.2 mg/kg AmB or with liposome dilution buffer.  
62 Standard errors are indicated by a line and whisker. **B, C, & D.** Examples of the images  
63 used to make CFU estimates. Microcolonies ranging from 5 to 300 microns in diameter  
64 were counted from the bottom of agar petri plates on an EVOS imaging system at 4X  
65 magnification. The number of CFUs was corrected for the area of the entire plate  
66 relative to each microscopic field, the amount of homogenized kidney tissue plated, and  
67 the weight of each kidney pair. Six mice were in each treatment group in this example.

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