**SUPPLEMENTAL MATERIAL**

# *In vivo* assessment of drug efficacy against *Mycobacterium abscessus* using the embryonic zebrafish test system

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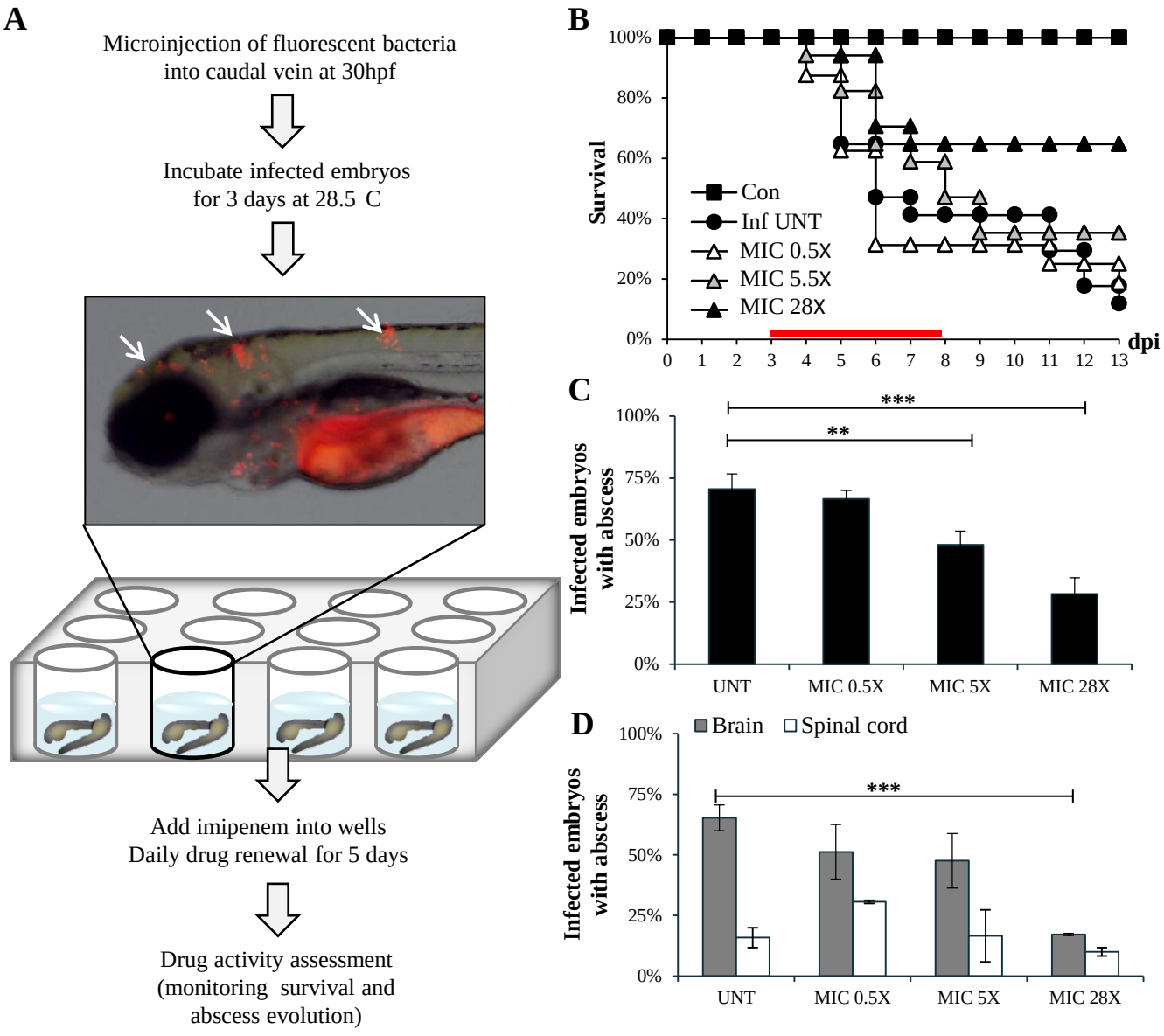


**Figure S1. Exposure to imipenem overcomes and protects against severe *M. abscessus* infections. (A-C)** tdTomato expressing *Mabs* (≈300 CFU) were injected in 30hpf embryos. From 3dpi, embryos were exposed during 5 days to imipenem at 0.5X, 5X or 28X MIC. **(A)** Schematic representation illustrating the "curing" protocol used as well as the infection status of the embryos at 3dpi (numerous abscesses within the CNS) when the drug treatment is applied. **(B)** Survival of infected *Mabs* treated at various doses of imipenem and compared to untreated infected embryos (n=20-30), representative of three independent experiments). A significant increased survival was observed in embryos exposed to the highest (28X MIC) imipenem dose. The red bar indicates the start and duration of treatment. **(C)** Frequency of *Mabs* abscesses in whole untreated or imipenem-treated embryos over 13dpi. Data are expressed as the average of three independent experiments. MIC 5X and MIC 28X imipenem treated-embryos infected by *Mabs* developed significantly fewer abscesses than untreated infected-embryos. **(D)** Average localization of abscesses of the infected embryos in (C). 28X MIC imipenem treated-embryos infected by *Mabs* developed significantly fewer abscesses within the brain than untreated infected-embryos. For (C) and (D) statistics were calculated using Fisher's exact test comparing each category of imipenem-treated embryos to untreated control. All results are expressed as the average from two or three independent experiments and error bars represent the standard errors of the mean (SEM). **p<0.01, ***p<0.001.

**Table S1.** Minimal inhibitory concentrations of several drugs against *M. abscessus* using the midrodilution method in cation-adjusted Mueller-Hinton (MH) broth or on LB agar. Antibiotics used in infected ZF are shown in bold. Results are expressed in µM and µg/ml.

| **Antibiotic** | **Molecular weight** | **Solvent** | **MIC MH broth** | | **MIC LB agar** | |
|---|---|---|---|---|---|---|
| | | | µM | µg/mL | µM | µg/mL |
| **Clarithromycin** | **748** | **DMSO** | **4** | **3.0** | **0.7** | **0.5** |
| Cefoxitin | 427 | DMSO | 60 | 25.6 | 35 | 15 |
| Amikacin | 586 | $H_2O$ | 125 | 73.25 | 26 | 15 |
| Isoniazid | 137 | $H_2O$ | 1000 | 137 | 365 | 50 |
| Erythromycin | 734 | DMSO | 125 | 91.75 | 10 | 7.5 |
| **Imipenem** | **299** | **$H_2O$** | **60** | **17.94** | **3.3** | **1** |
| Thiacetazone | 236 | DMSO | 1000 | 236 | 42 | 10 |