**Supplementary table 1| Models used for studying host-pathogen interactions.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bacterial pathogen** | **Host model(1)** | | | **Experimental approach(2)** | **MOI(3)** | **Infection efficiency(4)** | | **Reference** |
| **Cells** | **Type of cell** | **Starting amount (cells/well)** | **Infected cells** | **Intracellular bacteria (\*)** |
| *Salmonella* Typhimurium | BMDC | Primary | ND | FACS  CFU | ND | 40 %, 2 hpi | ̴ 104 CFU, 1 hpi | [1] |
| RAW264.7 | Macrophage-like | ND | ̴ 105 CFU, 1 hpi |
| HeLa | Epithelial | ND | IF | 50 | ND | 5±4 /cell(\*\*), 2 hpi | [2] |
| RAW264.7 | Macrophage-like | 5x105  (24 h before infection) | CFU  IF | 100 | ND | ̴ 10-fold(\*\*) increase, 8 hpi | [3] |
| HeLa | Epithelial | 5x105  (24 h before infection) | > 90%, 2 h pi | ̴ 10/cell(\*\*), 8 hpi  ̴ 10-fold increase(\*\*), 8 hpi |
| Swiss 3T3 | Fibroblast | 5x105  (24 h before infection) | ND | ̴ 10-fold increase(\*\*), 8 hpi |
| HeLa | Epithelial | 8x104  (24 h before infection) | IF  CFU | 10 | 81 ± 5 %, 16 hpi | ̴ 2 x105 CFU, 14 h pi | [4] |
| COS-7 | Fibroblast | ND | IF | 50 | > 80 %, 16 hpi | ND |
| HeLa-S3 | Epithelial | 2x105  (48 h before infection) | FACS  CFU | 5 | ND | ̴ 10/cell, 4 h pi  ̴ 75/cell, 24 h pi | [5] |
| 10 | < 25 %, 4 hpi | ND |
| 100 | > 75 %, 4 hpi | ND |
| HeLa | Epithelial | ND | CFU | 100 | ND | ̴ 3 fold increase 6 h pi | [6] |
| RAW264.7 | Macrophage-like | 10 | ̴ 20 fold increase 21.5 h pi |
| *Yersinia* spp. | BMDC | Primary | 3x103 | FACS  CFU | 20 | 65 %, 4 hpi *Y. enterocolitica* | 550/100 cells, 4 hpi  124/100 cells, 1 dpi  27/100 cells, 3 dpi | [7] |
| 50 | > 95 %, 4 hpi *Y. enterocolitica* | ND |
| BMM and PEM | Primary | 3 – 5 x106 | FACS | 20 | ̴ 40 % *Y. pestis*  ̴ 70 % *Y. pseudotuberculosis*  3 hpi | ND | [8] |
| HeLa | Epithelial | 2x104  (48 h before infection) | CFU | 10 | ̴ 40 % *Y. pestis*, 2 hpi | ND | [9] |
| hMM | Primary | ND | IF | 2 | ̴ 50 % *Y. pestis*, 2 hpi | ̴ 4/cell, 2 hpi | [10] |
|  | BMM | Primary | 1x105 | CFU | 50 | ND | 103 CFU, 1 hpi | [11] |
| J774.1 | Macrophages | 2x105 | CFU | 50 | ND | ̴ 1010 CFU/mL(\*\*\*) 24 hpi | [12] |
| THP-1 | Monocytes | 2x105 | ND | ̴ 109 CFU/mL(\*\*\*)24 hpi |
| J774.1 | Macrophages | 2x105 | CFU | 50 | ND | ̴ 108 CFU/mL(\*\*\*) 24 hpi | [13] |
| THP-1 | Monocytes | 2x105 | ̴ 108 CFU/mL(\*\*\*) 24 hpi |
| BMM | Primary | 2x105 | ̴ 108 CFU/mL(\*\*\*) 24 hpi |
| hMM | Primary | ND | ̴ 109 CFU/mL(\*\*\*) 24 hpi |
| hNeu | Primary | ND | ̴ 107 CFU/mL(\*\*\*) 2 hpi |
| BMM | Primary | ND | IF | 50 | > 10 %, 4 hpi  > 20 %, 24 hpi | ̴ 1/cell, 24 h pi | [10] |
| hMM | Primary | ND | > 15 %, 4 hpi  > 30 %, 24 hpi | ̴ 2/cell(\*\*), 24 h pi |
| *Listeria monocytogenes* | hNeu | Primary | ND | IF | 1 | > 80 %, 0.5 hpi | 4.24±0.44/cell(\*\*), 0.5 hpi | [14] |
| 10 | > 90 %, 0.5 hpi | 5.38 ± 0.77/cell(\*\*), 5 hpi |
| BMM | Primary | 2x105 | CFU | 20 | ND | 20/cell, 1 hpi | [15] |
| Caco-2 | Epithelial | ND | FACS | 50 | 30 %, 3 hpi | ND | [16] |
| hDC | Primary | 5x105 | EM | 50 | > 80 %, 1.5 hpi | 10 – 35/cell, 1.5 hpi | [17] |
| hGran | Primary | ND | FACS  CFU | 20 | > 20 %, 1 hpi | 214±188/100 cells, 1 hpi (female donors)  80±51/100 cells, 1 hpi (male donors) | [18] |
| hMono | Primary | ND | > 95 %, 1 hpi | 344±209/100 cells, 1 hpi (female donors)  113±42/100 cells, 1 hpi (male donors) |

(\*) Number of bacteria per cell, CFU and/or increase in CFU (post infection) observed

(\*\*) Microscopy based

(\*\*\*) Total volume of the lysate unspecified

(1) **BMDCs**: Bone Marrow derived Dendritic Cells; **BMMs**; Bone Marrow derived Macrophages, **PEMs**: Peritoneal Macrophages; **h:** human; **MM**: Monocyte derived Macrophage; **Neu**: Neutrophils; **Mono**: Monocytes; **Gran**: Granulocytes; **M**: Mouse; **ND**: Not described.

(2) **CFU**: Colony Forming Units; **IF**: Immunofluorescence; **FACS**: Fluorescent Assisted Cell Sorting; **EM**: Electron Microscopy.

(3) **MOI**: Multiplicity Of Infection; **ND**: Not described.

(4) **hpi**: hours post-infection; **dpi**: days post-infection; **ND**: Not described

**References**

1. Jantsch, J., et al., *Intracellular activities of Salmonella enterica in murine dendritic cells.* Cell Microbiol, 2003. **5**(12): p. 933-45.

2. Malik-Kale, P., S. Winfree, and O. Steele-Mortimer, *The bimodal lifestyle of intracellular Salmonella in epithelial cells: replication in the cytosol obscures defects in vacuolar replication.* PLoS One, 2012. **7**(6): p. e38732.

3. Beuzon, C.R., S.P. Salcedo, and D.W. Holden, *Growth and killing of a Salmonella enterica serovar Typhimurium sifA mutant strain in the cytosol of different host cell lines.* Microbiology, 2002. **148**(Pt 9): p. 2705-15.

4. Abrahams, G.L., P. Muller, and M. Hensel, *Functional dissection of SseF, a type III effector protein involved in positioning the salmonella-containing vacuole.* Traffic, 2006. **7**(8): p. 950-65.

5. Westermann, A.J., et al., *Dual RNA-seq unveils noncoding RNA functions in host–pathogen interactions.* Nature, 2016. **529**(7587): p. 496-501.

6. Brumell, J.H., et al., *SifA permits survival and replication of Salmonella typhimurium in murine macrophages.* Cell Microbiol, 2001. **3**(2): p. 75-84.

7. Schoppet, M., A. Bubert, and H.I. Huppertz, *Dendritic cell function is perturbed by Yersinia enterocolitica infection in vitro.* Clin Exp Immunol, 2000. **122**(3): p. 316-23.

8. Bi, Y., et al., *Yersinia pestis versus Yersinia pseudotuberculosis: effects on host macrophages.* Scand J Immunol, 2012. **76**(6): p. 541-51.

9. Cowan, C., et al., *Invasion of Epithelial Cells by Yersinia pestis: Evidence for a Y. pestis-Specific Invasin.* Infection and Immunity, 2000. **68**(8): p. 4523-4530.

10. Ireland, R., et al., *Effective, broad spectrum control of virulent bacterial infections using cationic DNA liposome complexes combined with bacterial antigens.* PLoS Pathog, 2010. **6**(5): p. e1000921.

11. Geier, H. and J. Celli, *Phagocytic Receptors Dictate Phagosomal Escape and Intracellular Proliferation of Francisella tularensis.* Infection and Immunity, 2011. **79**(6): p. 2204-2214.

12. McRae, S., et al., *Inhibition of AcpA phosphatase activity with ascorbate attenuates Francisella tularensis intramacrophage survival.* J Biol Chem, 2010. **285**(8): p. 5171-7.

13. Mohapatra, N.P., et al., *Type A Francisella tularensis acid phosphatases contribute to pathogenesis.* PLoS One, 2013. **8**(2): p. e56834.

14. Arnett, E., et al., *The pore-forming toxin listeriolysin O is degraded by neutrophil metalloproteinase-8 and fails to mediate Listeria monocytogenes intracellular survival in neutrophils.* J Immunol, 2014. **192**(1): p. 234-44.

15. de Chastellier, C. and P. Berche, *Fate of Listeria monocytogenes in murine macrophages: evidence for simultaneous killing and survival of intracellular bacteria.* Infect Immun, 1994. **62**(2): p. 543-53.

16. Balestrino, D., et al., *Single-Cell Techniques Using Chromosomally Tagged Fluorescent Bacteria To Study Listeria monocytogenes Infection Processes.* Applied and Environmental Microbiology, 2010. **76**(11): p. 3625-3636.

17. Kolb-Maurer, A., et al., *Listeria monocytogenes-infected human dendritic cells: uptake and host cell response.* Infect Immun, 2000. **68**(6): p. 3680-8.

18. Raybourne, R.B., et al., *Uptake and killing of Listeria monocytogenes by normal human peripheral blood granulocytes and monocytes as measured by flow cytometry and cell sorting.* FEMS Immunol Med Microbiol, 2001. **31**(3): p. 219-25.