

***Aspergillus fumigatus (Af)***: Exposure to the opportunistic fungal pathogen *Af* leads to a pulmonary infection. To induce a pulmonary infection with high reproducibility of infectious inoculum, mice will be challenged with *Af* via the intra-tracheal route using a non-invasive procedure. Prior to infection mice will be anesthetized by isoflurane inhalation to effect until changes in breathing pattern are observed (approx. 2-3 min. in the isoflurane chamber). Mice will receive different doses of live fungal conidia suspended in 50 µl of PBS. In previous studies, we have shown that wild type mice can survive *Af* infection without the development of detectable illness. In experiments where the use of genetically deficient mice might be needed the animals will be monitored daily for signs of disease progression (ruffled fur, listless, dehydrated). When necessary animals will be euthanized by CO<sub>2</sub> asphyxiation. For all experimental procedures mice will be subjected to the minimal discomfort possible.