

# Pneumonia Virus of Mice

## Host species

- mouse, rat, hamster, guinea pig, (rabbit)

## Organotropism

- respiratory tract

## Clinical disease

- asymptomatic in euthymic animals (Smith, et al., 1984)
- chronic pneumonia and death in athymic (nude) mice (Richter, et al., 1988) (Weir, et al., 1988)

## Pathology

- mild necrotizing rhinitis, necrotizing bronchiolitis and nonsuppurative interstitial pneumonia

## Morbidity and mortality

- morbidity: from 20% (in mice) to 50% (in rats and hamsters)
- mortality: none, except in immunodeficient mice

## Interference with research

### Physiology

- increases the susceptibility to diabetes induction by streptozotocin in BALB/cByJ males mice (Leiter, et al., 1988)
- causes significant decreases in body weights of F344/NCr rats but not of B6C3F1 mice (Rao, et al., 1989a+b)

### Pathology

- produces an interstitial pneumonia with virus demonstrated in the bronchial epithelium but also in the alveolar walls and alveolar macrophages in germ-free athymic and euthymic mice (Carthew and Sparrow, 1980a+b)

- causes hydrocephalus after intracerebral inoculation of neonatal mice (Lagace-Simard, et al., 1980)

## Oncology

- lowers the prevalence of leukemia in male F344/NCr rats (Rao, et al., 1989)

## References

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