

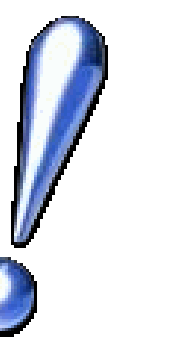
Introduction

Pneumocystis organisms are a group of fungi that infect the lung alveoli of mammals, including humans and rats. In an immunosuppressed host, *Pneumocystis carinii* proliferate in the lung alveoli, causing a lethal pneumonia. The complete life cycle of these organisms has not been fully characterized, primarily due to a historical lack of a long-term culture system, although sexual and asexual stages have been described. Animal studies have shown that transmission occurs through an airborne route. In most humans, the less affected by HIV or other immune causes immunosuppressive individual own ends infection and carriers are few; but in rats, immunity is usually associated with latent infection, it is important because it is increasing the purchase of pet rats. It's important to know if it is present actually.

Objectives

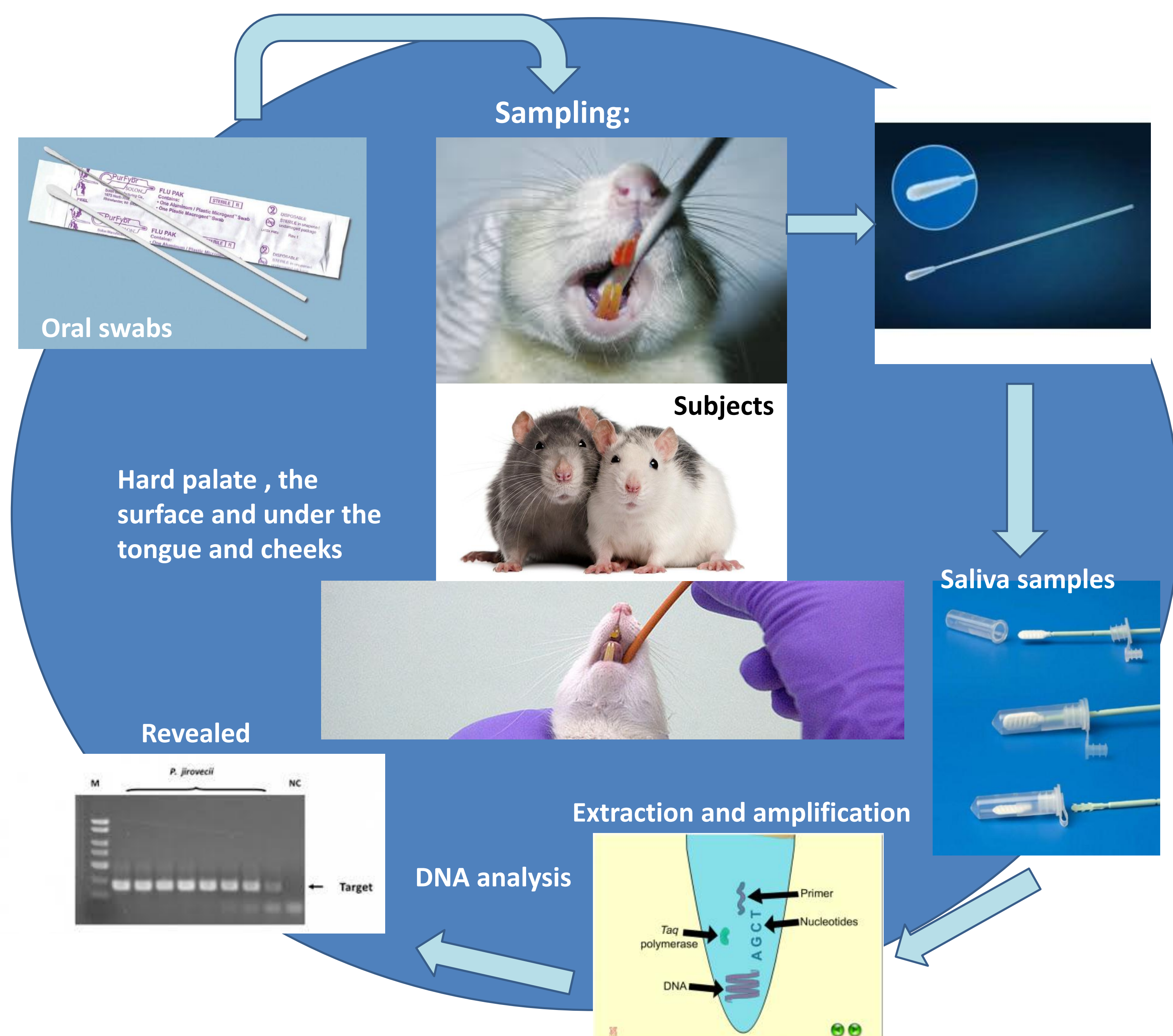
Determine the prevalence of *Pneumocystis carinii* in pet rat through genome detection by PCR techniques (Polymerase Chain Reaction) from oral swabs

Results



| Sample code | Sex | Age | Origin | Pathology | Pulmonary histopathology | PCR results |
|-------------|--------|----------|------------|----------------------------|--------------------------|-------------|
| PNE-001 | Male | 2 years | Pet | Mammary gland fibroadenoma | Negative | Negative |
| PNE-002 | Male | 2 years | Pet | Dilated cardiomyopathy | Negative | Negative |
| PNE-003 | Female | 2 years | Pet | Mammary gland fibroadenoma | Negative | Negative |
| PNE-004 | Female | 2 years | Pet | Osteosarcoma | Negative | Negative |
| PNE-005 | Female | 2 years | Pet | Without pathology | Negative | Negative |
| PNE-006 | Female | 2 years | Pet | Dilated cardiomyopathy | Negative | Negative |
| PNE-007 | Female | 2 years | Pet | Without pathology | Negative | Negative |
| PNE-008 | Male | 8 months | Pet | Without pathology | Not performed | Negative |
| PNE-009 | Female | 6 months | Pet | Mammary gland fibroadenoma | Not performed | Negative |
| PNE-010 | Female | 3 months | Pet | Ovarian cysts | Not performed | Negative |
| PNE-011 | Female | 3 years | Pet | Mammary gland fibroadenoma | Negative | Negative |
| PNE-012 | Male | 5 months | Pet | Without pathology | Not performed | Negative |
| PNE-013 | Female | 5 months | Pet | Without pathology | Not performed | Negative |
| PNE-014 | Male | 5 months | Pet | Without pathology | Not performed | Negative |
| PNE-015 | Female | 2 months | Pet | Without pathology | Not performed | Negative |
| PNE-016 | Female | 2 months | Pet | Without pathology | Not performed | Negative |
| PNE-017 | Male | 2 months | Pet | Without pathology | Not performed | Negative |
| PNE-018 | Male | 2 months | Pet | Without pathology | Not performed | Negative |
| PNE-019 | Male | 2 months | Pet | Without pathology | Not performed | Negative |
| PNE-020 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-021 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-022 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-023 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-024 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-025 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-026 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-027 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-028 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-029 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-030 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-031 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |
| PNE-032 | Male | 3 months | Laboratory | Without pathology | Not performed | Negative |

Material and Methods

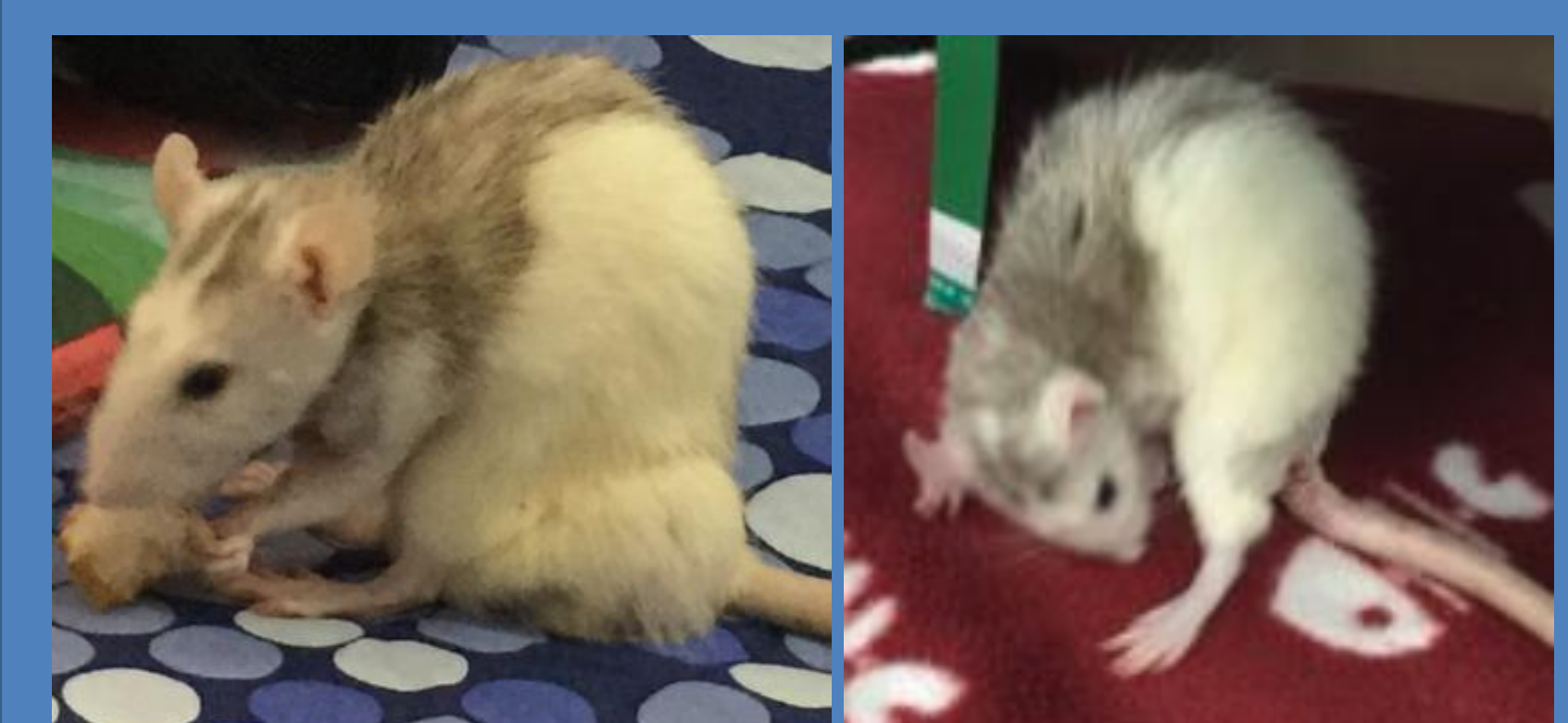


Prevalence : 0,0000 %

Conclusions

- The method employed for detecting *Pneumocystis carinii* from oral swabs, and making a subsequent polymerase chain reaction or PCR is fast and non-invasive.
- With a 0 % prevalence of *P. carinii* can be concluded that there is latent or is currently present in the oral cavity of domestic and laboratory rats.
- The presence of some diseases do not seem to influence the expression of *P. carinii*. since those disease do not cause immunosuppression, the key to develop a fungal infection.
- Parameters such as sex, age and origin does not affect the prevalence of *P. carinii*.

Example of real subject with mammary gland fibroadenoma



This rat was operated and lived 9 months more.



Although very large mammary gland fibroadenoma manifest, it has not been described to cause immunosuppression