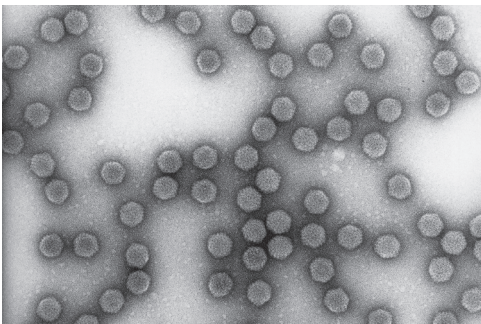


KEYWORDS

- » Animal Viruses
- » Molecular Virology
- » Viral Pathogenesis
- » Immunosuppressive Virus Diseases in Poultry
- » Diagnostics



CONTACT

Prof. Dr. Hermann Müller
Professur für Veterinärvirologie
Veterinärmedizinische Fakultät

Institut für Virologie
An den Tierkliniken 29
04103 Leipzig
Fon +49-(0)341-97 38200
Fax +49-(0)341-97 38219
virology@vetmed.uni-leipzig.de
www.vmf.uni-leipzig.de

MOLECULAR VIROLOGY AND DIAGNOSTICS OF VIRUS DISEASES OF ANIMALS

The focus of research at the Institute for Virology is on basic science, applied science and diagnostics in the field of animal viruses and viral infections of animals. By the application of modern techniques of molecular biology, certain aspects of the pathogenesis of virus diseases are investigated, using DNA as well as RNA viruses as models. On one side, these viruses exhibit uncommon morphological and biological characteristics; on the other side, they are the causative agents of economic losses, mainly to the poultry industry, or they may not only cause disease in animals, but also in humans. The aims of these investigations are to elucidate the molecular basis for the uncommon host and cell tropism of these viruses at the level of adsorption to and entry into susceptible cells as well as virus replication, and to identify virulence markers. To fight against economically important virus infections, virus vaccines and diagnostic tools are developed by the application of the techniques of molecular biology. The efficiencies of conventional diagnostic protocols are compared to those applying the techniques of molecular biology, particularly with regard to specificity and sensitivity. It is the intention to make suitable protocols and reagents commercially available. Research is funded by grants from the Deutsche Forschungsgemeinschaft, various states or country ministries, the European Commission, the Fonds der Chemischen Industrie and industrial partners.

SELECTED REFERENCES

MATTIL-FRITZ, S.; SCHARNER, D.; PIUKO, K.; THÖNES, N.; GISSMANN, L.; MÜLLER, H.; MÜLLER, M.

Immunotherapy of equine sarcoid: dose-escalation trial for the use of chimeric papillomavirus-like particles. *Journal of General Virology* 89 (2008), 138–147.

JOHNE, R.; MÜLLER, H.

Polyomaviruses of birds: etiologic agents of inflammatory diseases in a tumor virus family. *Journal of Virology* 81 (2007), 11554–11559.

JOHNE, R.; PAUL, G.; ENDERLEIN, D.; STAHL, T.; GRUND, C.; MÜLLER, H.

Avian polyomavirus mutants with deletions in the VP4-encoding region show deficiencies in capsid assembly and virus release, and have reduced infectivity in chicken. *Journal of General Virology* 88 (2007), 823–830.