

FLI – FRIEDRICH LOEFFLER INSTITUTE

(DE)

Research topics:	<p>The FLI harbours the National Reference Laboratories for all notifiable animal diseases. In this context, research is performed on the development of new and state-of-the-art diagnostics, the agent/host interaction, the pathogenesis and the agent excretion from infected and / or diseased animals.</p> <p>With regard to emerging and re-emerging diseases, our focus lies on important pathogens such as:</p> <ul style="list-style-type: none">• Rift Valley Fever virus• West Nile Fever virus and other Flaviviruses• Zaire Ebola virus (excluding infectious work)• Crimean Congo Hemorrhagic Fever virus (excluding infectious work)• African Swine Fever virus• Highly pathogenic avian influenza viruses• Newcastle Disease virus• Lumpy-Skin Disease virus• Rabies virus• Orbivirus infections• Bunyavirus infections• Peste des Petits Ruminants Virus• Classical Swine Fever virus• Foot-and-Mouth Disease virus <p>In the framework of the above mentioned work, samples are collected and characterized that feed into the biobank system available at the FLI. The later contains collections of cell lines, viruses, and samples.</p>
Activities and services currently offered by the infrastructure/installation:	FLI offers access to laboratories (BSL2, 3**, 3, 3+) and technologies including high-throughput diagnostics, electron microscopy, live cell imaging, Next-Generation sequencing etc., as well as animal

	<p>facilities under the same biosafety levels.</p> <p>Animal models routinely used at the FLI include pigs (domestic pigs and wild boar), small and large ruminants, poultry, fish, ferrets, rabbits, rats, mice.</p>
<p>Description of the access to be provided under VetBioNet TNA call:</p>	<p>Access typically consists of 21 days:</p> <p>An access to FLI will typically include a challenge experiment or a vaccination study in farm animals. After transfer of the animals into the infection facility, control samples (blood, serum, swabs) will be collected. Then the challenge or vaccination study will be performed, including a regular (daily or every other day) collection of blood, serum, swab, urine, faeces (depending on the agent) samples. At the end of the experiment, the animals are sacrificed and necropsied under contamination-free conditions to ensure that all samples can be used for infectivity analysis afterwards. Analysis of the samples collected during the animal study can be performed in the corresponding laboratories at the FLI.</p>
<p>Animal species/pathogens that can be worked on in this infrastructure/installation:</p>	<p>Pigs – Influenza virus, Classical Swine Fever virus, African Swine Fever virus, Foot-and-Mouth Disease virus</p> <p>ruminants – Schmallenberg virus and other Bunyaviruses, RSV (exp. MP-12), Peste des Petits Ruminants virus, Foot-and-mouth disease virus</p> <p>poultry and other birds – Influenza A virus, West Nile virus, Newcastle Disease virus</p> <p>Ferrets – Influenza A virus</p> <p>Mice – rabies, TSE</p>
<p>Travel and subsistence costs:</p>	<p>The reimbursement of travel and subsistence costs to the applicants will be performed according to German legislation (Bundesreisekostengesetz).</p>
<p>Infrastructure/installation ethical rules:</p>	<p>All animal experiments performed at the FLI must conform with the national and EU regulation (esp. RL 2010/63/EU) and must be approved in advance by the competent authority of the Federal State of Mecklenburg-Western Pomerania, Germany, which also includes the Ethic Committee of Mecklenburg-Western Pomerania. In addition, animal studies are continuously monitored by the Animal Welfare</p>

	Officer and must be approved by the Institutional Animal Care and Use Committee (IACUC).
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