

Institut für molekulare Pathogenese

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FRIEDRICH-LOEFFLER-INSTITUT

seit 1910

FLI

Bundesforschungsinstitut für Tiergesundheit
Federal Research Institute for Animal Health

Mission

The Institute strives

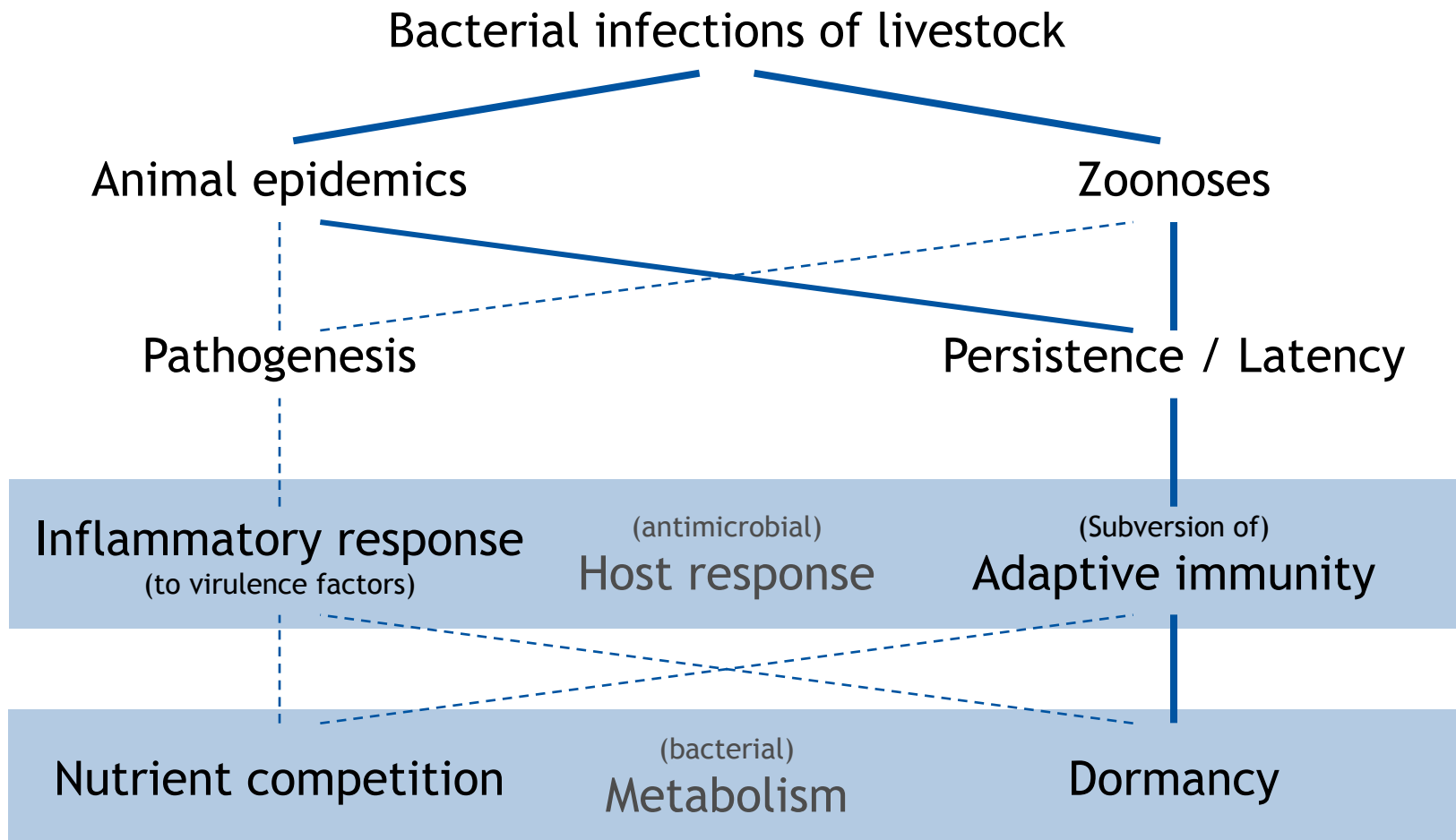
- to characterize the interaction of bacteria causing animal epidemics and zoonoses with their various hosts on a molecular level,
- to evaluate respective findings regarding their impact on the host organisms, and
- to convert them into measures to prevent and to combat bacterial infections in livestock.

↓
in vitro

↓
in vivo

↓
field
application

Prioritization of research targets



Research topics and expertise

Microorganisms addressed

- *Chlamydia psittaci*,
- *Chlamydia avium*, ~ *galinaceae*
- *Chlamydia abortus*

- *Mycoplasma mycoides ssp. mycoides SC*
- *Mycoplasma bovis*

- *Mycobacterium bovis* / MTC
- *Mycobacterium avium*
ssp. paratuberculosis
ssp. hominisuis

- *Brachyspira hyodysenteriae*

- *Coxiella burnetii*

- Enterohemorrhagic *E. coli*

Methodical expertise

- Classical and PCR-based pathogen detection
- Molecular strain typing
(microarray, PFGE, RFLP, VNTR, Spoligotyping)
- Virulence marker expression analysis
(RT-PCR, 2D-PAGE, DIGE)
- Cellular microbiology
(primary cell cultures)
- Infection models
(calf, swine, chicken, embryonated chicken egg)
- Lung function analysis
- Immunobiology
(immunohistology, cytokine expression)
- Pathology / Histology
- Electron & laser scanning microscopy
(transmission ~, scanning ~, immunogold ~)