

Infrared thermography of the skin to assess pain in piglets

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Routine husbandry procedures in piglets

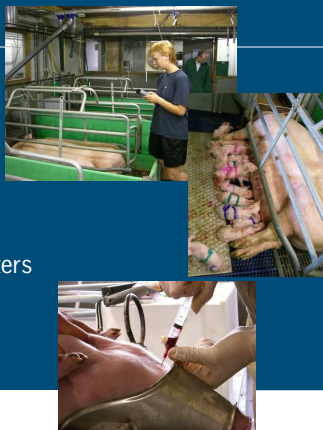
- Castration
- Tail docking
- Ear tagging
- Teeth clipping/grinding
- Injections
- Societal debate
- Pain and integrity



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Assessing pain

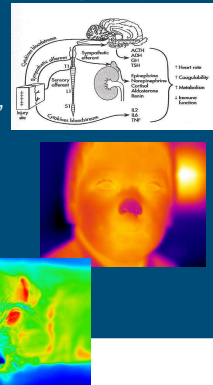
- Self scoring
- Behaviour
 - Vocalizations
 - Normal behaviour
 - Pain related behaviour
- Physiological parameters
 - Cortisol
 - Heart rate
 - Skin temperature



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Skin temperature and Infrared thermography

- Skin temperature
 - Blood flow
 - HPA-activation: 'Fright, fight or flight'
- Infrared Thermography
 - Measuring heat radiation of the skin
 - No animal contact
 - Real-time
 - Local or systemic effects



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Study design

- 64 female piglets, from 16 litters
- Treatments:
 - SHAM no procedure
 - DOCK tail docking
 - MELDOCK tail docking after meloxicam (NSAID)
 - TAG ear tagging
- IRT photograph every 30 (batch 1) or 10 (batch 2) seconds from 5 min prior to 15 min after

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