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2. Objectives

3. **Manuscript 1**: *Technical note*: Identification of reference genes for gene expression studies in different bovine tissues focusing on different fat depots.

4. **Manuscript 2**: Bovine haptoglobin as an adipokine: Serum concentrations and tissue expression in dairy cows receiving a conjugated linoleic acids supplement throughout lactation

5. **Manuscript 3**: Hepatic and extrahepatic expression of serum amyloid A3 during lactation in dairy cows treated with or without conjugated linoleic acids

6. **Manuscript 4**: Physiological and conjugated linoleic acids induced changes in the expression of genes related to insulin sensitivity and fat metabolism in different tissues of dairy cows during lactation

7. General discussion and conclusions

8. Summary

9. Zusammenfassung (Summary in German language)

10. References

11. Acknowledgments

12. Publications derived from this doctorate thesis

12.1. Papers and manuscripts

12.2. Abstracts in conferences