

Invitation

**64th Conference
of the Society
of Nutrition Physiology**

9th-11th March 2010 in Göttingen

**Gesellschaft für Ernährungsphysiologie
(Society of Nutrition Physiology)
Eschborner Landstraße 122
D-60489 Frankfurt am Main
Tel.: 0049 (0)69/24788-320 • Fax: 0049 (0)69/24788-114
E-mail: W.Staudacher@dlg.org • Internet: www.gfe-frankfurt.de**

Tuesday, 9th March 2010

13:30 – 13:30 h **Opening session**

13:30 – 15:00 h **Presentations**

Section 1 Amino acides and nitrogen

1. **Studies on optimum tryptophan to lysine ratio in wheat-barley or corn based diets for growing pigs**
M. Naatjes, J. K. Htoo, K.H. Tölle and A. Susenbeth – Kiel/Hanau/Blekendorf
2. **Protein evaluation of horse feed – a novel concept**
Annette Zeyner, Susanne Kirchhof, A. Susenbeth, K.-H.Südekum and Ellen Kienzle - Rostock/Stuttgart-Hohenheim/Kiel/Bonn/Munich
3. **Methionine efficiency in chicken diets with varying Met to Cys ratio modifies the concluded Met requirements**
Jaqueline Farke, C. Wecke and F. Liebert – Göttingen
4. **Effects of maternal protein intake during pregnancy on body composition and skeletal muscle properties of newborn piglets**
Claudia Kalbe, Jana Block, L. Lefaucheur, B. Stabenow, W. Otten, Cornelia C. Metges and Charlotte Rehfeldt – Dummerstorf/Saint Gilles

Section 3 Feed additives

25. **Dietary carnitine supplementation down-regulates components of the ubiquitine-proteasome system in liver and muscle of growing pigs**
Janine Keller, J. Varady, F. Hirche, H. Kluge, R. Ringseis and K. Eder – Gießen/Halle (Saale)
26. **Intestinal effects of a short term application of inulin with varying chain lengths in piglets**
Nadine Paßlack, W. Vahjen, K. Männer and J. Zentek – Berlin

15:00 – 15:30 h **Coffe break**

15:30 – 16:30 h **Poster session (5-11, 18-24, 27-35, 40-42)**

17:00 h **Award of the Henneberg-Lehmann-Foundation in Old Assembly Hall of the University am Wilhelmsplatz followed by dinner**

Tuesday, 9th March 2010

13:30 – 15:00 h Presentations

Section 2 Minerals

12. **Influence of supplementation of 25-hydroxyvitamin D₃ combined with an acidifying diet on the calcium metabolism in periparturient dairy cows**
Inga Oberheide, Mirja Wilkens, Elisabeth Azem, B. Schröder and G. Breves – Hannover/Basel
13. **Time Course of Calcium and Vitamin D-deficiency on Bone Metabolism and Fat Absorption in Minipigs**
Katharina E. Scholz-Ahrens, C.-C. Glüer and J. Schrezenmeir – Kiel/Karlsruhe
14. **Effects of organic zinc sources compared to zinc sulphate on growth performance and on the zinc status of weaned piglets**
Brigitte R. Paulicks, Hanna Ingenkamp and K. Eder – Freising-Weihenstephan/Gießen
15. **Effects of selenium (Se) supplementation on Se concentrations and GPx activities in different tissues in fallow deer**
Ingrid Vervuert, Sophie Stoebe, Erika Most, J. Pallauf, A. Mueller and M. Coenen – Leipzig/Gießen/Halle
16. **Effect of acacia tannins on mineral utilisation in lambs**
H.D. Hess and Frigga Dohme – Posieux
17. **Effect of rapeseed expeller on the iodine and thyroid hormone status of high-yielding dairy cows**
F. Schöne, C. Koch, M. Leiterer, F.-J. Romberg, H. Steingaß and K.-H. Südekum – Jena/Münchweiler/Stuttgart-Hohenheim/Bonn

15:00 – 15:30 h Coffe break

15:30 – 16:30 h Poster session (5-11, 18-24, 27-35, 40-42)

Wednesday, 10th March 2010

9:00 – 10:45 h Presentations

Section 4 Energy metabolism

36. **The development of a ME-system for energy evaluation in horses**
Annette Zeyner, Christiane Schüler and Ellen Kienzle – Rostock/Munich
37. **Performance parameters of high-yielding dairy cows during early lactation, during an energy restriction at 100 DIM, and a following realimentation**
J. Groß, H. Anette van Dorland, R.M. Bruckmaier and F.J. Schwarz – Freising-Weihenstephan/Posieux/Bern
38. **Retinol-Binding-Protein 4 (RBP4) and abomasal displacement (DA)**
M. Fürll, B. Fürll, L. Locher and J. Raila – Leipzig/Potsdam
39. **First-pass splanchnic uptake of glucose in neonatal calves fed either colostrum or formula**
Julia Steinhoff, Solvig Görs, R. M. Bruckmaier, Ellen Kanitz, Helga Sauerwein, Cornelia C. Metges and H. M. Hammon – Dummerstorf/Bern/Bonn

Section 6 Free topics

58. **Intrauterine crowding affects organ weight development and myogenesis in pigs**
J. Bérard, C. Pardo-Mariño, M. Kreuzer and G. Bee – Posieux/Zurich
59. **Faecal silica levels of large herbivores correlate to hypsodonty**
J. Hummel, Eva Findeisen, D. Codron, K.-H. Südekum and M. Clauss – Bonn/Zurich
60. **Microbial quality of drinking water in livestock farming (turkey fattening): basics and influences**
C. Visscher, U. Kümmel, R. Günther, U. Siesenop, M. Beyerbach und J. Kamphues – Hannover

10:45 – 11:15 h Coffee break

11:15 – 12:30 h Presentations

Section 7 Lipids and fatty acids

65. **Rumen-protected choline reduces hepatic triacylglycerol concentrations in periparturient dairy cattle**
A.M. van Vuuren, R. Zom, Roselinde M.A. Goselink, J.A. Bakker and M. J. de Veth – Lelystad/New Hampton
66. **Effects of long-term supplementation of dairy cow rations with rumen-protected conjugated linoleic acids (CLA) on fatty acid distribution in milk fat**
Julia Pappritz, U. Meyer, G. Jahreis, G. Flachowsky and S. Dänicke – Braunschweig/Jena
67. **Immunohistochemical localisation of 11 β HSD1 in adipose tissue of dairy cattle supplemented with conjugated linoleic acids**
Susanne Häußler, Claudia Strafella, Sven Dänicke, Dirk von Soosten and Helga Sauerwein – Bonn/Braunschweig
68. ***In vitro* biohydrogenation of various oilseeds**
A. Hoffmann, H. Steingäß, Karin Hartung and R. Mosenthin – Stuttgart-Hohenheim
69. **Effect of synthetic and native PPAR α agonists on expression of genes involved in carnitine homeostasis and tissue and egg carnitine concentrations in laying hens**
Robert Ringseis, M. Shibani, J. Keller, F. Hirche, H. Kluge, B. König, G.I. Stangl and K. Eder – Gießen/Halle (Saale)

12:30 – 13:30 h Lunch

13:30 – 15:30 h Poster session (50-57, 61-64, 70-78, 83-86, 95-120, 125-128, 133-135)

15:30 – 16:00 h Coffee break

Section 9 Feedstuff evaluation and feeding

87. **A practical model to estimate the requirements for physically effective fibre (peNDF) in dairy cows**
Q. Zebeli, D. Mansmann, B. N. Ametaj, H. Steingass and W. Drochner – Edmonton/Stuttgart-Hohenheim
88. **Diet change from grain maize-supplemented grazing to pure grazing: Elution kinetics of maize-derived ¹³C in faeces and milk**
S. Schneider, K. Auerswald, H. Schnyder and G. Bellof – Freising
89. **Energy intake and weight development of grazing goats in the Al Jabal al Akhdar Mountains of Oman**
U. Dickhoefer and E. Schlecht – Witzenhausen
90. **Assessing silage quality on laboratory scale – a comparison between glass jar silages and vacuum-packed Rostock model silages (ROMOS)**
Sandra Hoedtke, Edda Maria Ott and Annette Zeyner – Rostock
91. **Effects of grinding intensity and botanical composition of unpelleted diets for fattening pigs on the integrity of the gastric mucosa**
Saara Betscher, M. Wintermann, Denise Pohl, Anne Mößeler, B. Bodmann, Christiane Schulze Langenhorst, G. Stalljohann and J. Kamphues – Hannover/Bad Sassendorf
92. **Prediction of organic matter digestibility of pigs' diets from faeces using near-infrared reflectance spectroscopy**
Anne Schiborra, Britta Blank, O.S. Akinola, M. Bulang and Eva Schlecht – Kassel-Witzenhausen/Göttingen/Kiel/Abeokuta/Halle (Saale)
93. **Growth performance and metabolic efficiency of common carp (*Cyprinus carpio* L.) fed detoxified *Jatropha curcas* kernel meal**
V. Kumar, H. P. S. Makkar and K. Becker – Stuttgart-Hohenheim
94. **Aggregation of German livestock production according to a revised evaluation of cereal units**
S. Schulze Mönking and Hj. Abel – Göttingen

Wednesday, 10th March 2010

09:00 – 10:45 h Presentations

Section 5 Digestion and gut microbiology

43. **The influence of body weight on digesta mean retention time in large herbivores**
P. Steuer, K.-H. Südekum, Ragna Franz, M. Clauss and J. Hummel – Bonn/Zurich
44. **Changes in the chemical composition of the microbial fraction, methane formation and short chain fatty acids by tannins and saponins using an *in vitro* rumen fermentation system**
J. Castro-Montoya, H. P. S. Makkar and K. Becker – Stuttgart-Hohenheim
45. **Influence of forage source and feed particle size of rations for ruminants on the ruminal *Archaea* and *Bacteroides-Prevotella* community *in vitro***
M. Witzig, J. Boguhn and M. Rodehutsord – Stuttgart-Hohenheim
46. **Effects of grain processing in a combined diet (consisting of supplementary feed and wheat or corn) for fattening turkeys and adding grit on the digestibility of organic matter and starch**
Stefanie Bank, L. Koddebusch and J. Kamphues – Hannover/Garrel
47. **Increasing zinc oxide supplementation to piglets reveals effects on the concentration and diversity of small intestinal microbial communities**
W. Vahjen, R. Pieper and J. Zentek – Berlin
48. **Quantitative changes in ileal and faecal microbiota and occurrence of *Escherichia coli* virulence factors in grower pigs fed diets supplemented with purified viscous and fermentable non-starch polysaccharides**
Barbara U. Metzler-Zebeli, Seema Hooda, R.T. Zijlstra, R. Mosenthin and M.G. Gänzle – Edmonton/Stuttgart-Hohenheim
49. **Influence of NSP-hydrolyzing enzymes on nutrient digestibility and bacterial ecophysiology in an *in vitro* model of the porcine gastrointestinal tract**
R. Pieper, J. Bindelle, C.A. Montoya, A.G. Van Kessel and P. Leterme – Berlin/Saskatoon

10:45 – 11:15 h Coffee break

11:15 – 12:15 h Presentations

Section 8 Effects on environment

79. **N excretion to N deposition ratios in growing pigs as derived from modelling of N excretion depending on dietary protein supply**
C. Wecke and F. Liebert – Göttingen
80. ***In vitro* evaluation of various feeds and feed additives for their methane suppressing activity and their effects on ruminal fermentation**
Sabrina M. Staerfl, M. Kreuzer and Carla R. Soliva – Zurich
81. **Efficiency of several combinations of potential inhibitors of ruminal methane formation *in vitro***
Sonja Westphal, H. Steingäß, W. Drochner and M. Rodehutsord – Stuttgart-Hohenheim
82. **The use of principal component analysis to screen tropical plants for high quality and low ruminal methane formation**
A. Jayanegara, Carla R. Soliva, Elizabeth Wina, Svenja Marquardt, M. Kreuzer and F. Leiber – Zurich/Bogor

12:15 – 13:30 h Lunch

13:30 – 15:30 h Poster session
(50-57, 61-64, 70-78, 83-86, 95-120, 125-128, 133-135)

15:30 – 16:00 h Coffee break

16:00 – 18:00 h Presentations

Section 10 Transport and epithelial physiology

- 121. Intestinal glucose transport in lactating dairy cows with different extent of fat mobilisation**
Stefanie Klingler, H. Martens and G. Breves – Hannover/Berlin
- 122. Inhibition of ruminal urea transport by ammonia depends on luminal pH and SCFA concentrations**
Z. Lu, K. Abdoun, F. Stumpff and H. Martens – Nanjing/Khartoum/Berlin
- 123. Effect of diets' physical form (meal, pellets), type of feeding (liquid, dry) and exposure to hydrochloric acid on functional parameters of the pig stomach**
Sabine Leonhard-Marek, M. Wintermann, S. Betscher, A. Mößeler and J. Kamphues – Hannover
- 124. Uptake of the colon carcinogen 2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine by different segments of the rat gastrointestinal tract**
P. Steinberg, Petra Nicken, G. Hamscher and G. Breves – Hannover

Section 11 Undesirable substances

- 129. A survey on *Fusarium* toxins and Ochratoxin A in cereal straw from Germany**
S. Sondermann, M. Schollenberger, W. Drochner, D. Rohweder, H. Valenta, S. Dänicke, K. Hartung and H.-P. Piepho – Stuttgart-Hohenheim/Braunschweig
- 130. Residues of dioxins in adipose tissue of pigs depending on contamination in feed**
U. Wehr, S. Lenk, K.W. Schramm, R. Mayer and Sylvia von Rosenberg – Oberschleissheim/Munich
- 131. Effects of deoxynivalenol (DON) and related compounds on bovine peripheral blood mononuclear cells (PBMC)**
S. Dänicke, Christina Keese and Tanja Goyarts – Braunschweig
- 132. Investigations on adverse effects of feeding dried marsh horsetail (*Equisetum palustre*) to ruminants and horses**
Katharina Hünsche, Petra Wolf, G. Lange and J. Kamphues – Hannover

Thursday, 11th March 2010

Workshop **Evaluation of the adequacy of feeding and metabolic status of dairy cows on the basis of concentrations in blood and other media: Chances, limitations and challenges**

- 8:30 – 8:35 h** **Introduction**
J. Kamphues – Hanover
- 8:35 – 8:50 h** **Blood measures: when and why? The view of the farmer**
T. Engelhard – Iden
- 8:50 – 9:05 h** **Effects of sample pretreatment on the quality of laboratory results**
Esther Humann-Ziehank – Hanover
- 9:05 – 9:25 h** **How to conclude from blood parameter**
M. Kaske – Hanover
- 9:25 – 9:40 h** **How to make the outcome of milk analyses better with further data from the control of feeding**
B. Losand – Dummerstorf
- 9:40 – 10:00 h** **Discussion of the presentations**
- 10:00 – 10:30 h** **Coffe break**
- 10:30 – 11:00 h¹** **Is the status of supply of energy and protein of a dairy cow reflected in blood and/or milk parameter?**
M. Stangassinger – Munich
- 11:00 – 11:30 h¹** **Can pooled samples reduce the cost for evaluating the metabolic profile in dairy herds?**
R. Stauffenbiel – Berlin
- 11:30 – 11:50 h¹** **Minerals and trace elements in the blood of dairy cows at different levels of supply**
M. Spolders – Braunschweig
- 11:50 – 12:10 h¹** **Blood analyses: The focus is more relevant than the number!**
M.Höltershinken – Hanover
- 12:10 – 13:00 h** **General discussion of the Workshop**
- ¹ incl. 5 minutes of discussion
- 13:00 h** **Final remarks and closure of the Conference**

Section 1 Amino acids and nitrogen

5. **Effect of age on the precaecal amino acid digestibility in broilers**
M. Petzold, C. Georgi and H. Kluth – Halle (Saale)
6. **Optimal Sulphur Amino Acids to Lysine Ratio in Grower Phase (day 14-35) in Ross 308 Broilers**
Ariane Helmbrecht, Evelien Hangoor, P.J.A. Wijtten, J.K.W.M. Sparla and A. Lemme – Hanau/Rotterdam
7. **Methionine efficiency in a diet for Tilapia (*Oreochromis niloticus*) with different methionine supplements**
Wen Gao, F. Liebert and A. Lemme – Göttingen/Hanau
8. **Responses of common carp (*Cyprinus carpio* L.) to DL-methionine supplementation at different feeding**
F.J. Schwarz, A. Lemme, L.C. Nwanna and A. Metwally – Freising-Weihenstephan/Hanau
9. **Further results about comparison of different procedures for determination of apparent digestibility of crude protein in poultry diets**
Angela Sünder, Petra Wolf, J. Kamphues and F. Liebert – Göttingen/Hannover
10. **Effects of maternal protein supply during pregnancy on the somatotropic axis in offspring: IGF-binding proteins 2 and -3 in piglets at weaning**
Anika Ooster, Ute Müller, Helga Sauerwein, Iris Lang, Maria Peters, Charlotte Rehfeldt and Cornelia C. Metges – Bonn/Dummerstorf
11. **Effects of varying ruminal N-balance (RNB) on performance of dairy cows**
T. Ettle, A. Obermaier and H. Spiekers – Grub

Section 2 Minerals

18. **Effects of three different organic zinc sources in comparison to zinc sulphate on production and physiological parameters in weaned piglets**
Felicitas Siebert, Erika Most and J. Pallauf – Giessen
19. **Preliminary studies on the postprandial changes in the phosphorus homeostasis in pigs after intake of different phosphorus sources**
Katharina Hoffmann, M. Coenen and J. Liese – Leipzig
20. **Influence of two different selenium sources on performance of laying hens**
Ingrid Halle and H. Schenkel – Braunschweig/Stuttgart-Hohenheim
21. **Selenium, antioxidant and immune status of milk from dairy cows fed different sources of dietary selenium**
Daniela Dinse, S. Salman, H. Schafft, Monika Lahrssen-Wiederholt, P. Annabella Khol-Parisini, Lydia Tedin and J. Zentek – Berlin
22. **Effects of supplementing sodium chloride on acid-base balance and parameters of calcium metabolism of exercised horses**
Kristin Romanowski, Annette Zeyner, Ellen Kienzle, M. Fürll and Pat Harris – Rostock/Munich/Leipzig/Waltham
23. **Investigations on the best qualified sample (serum or plasma) for analysing copper and zinc supply in dairy cows**
Tatjana Tilker-Spreer, M. Spolders, M. Höltershinken, J. Rehage and G. Flachowsky – Braunschweig/Hannover
24. **Bone development in early growth of chickens fed diets with different amounts of calcium and phosphorus**
Dorota Jamroz, R. Żyłka and T. Wiertelcki – Wrocław

Section 3 Feed additives

27. **Effects of broccoli extract and various essential oils on the induction of phase II enzymes in the intestine of Ross 308 broilers**
Kristin Mueller, Anke Markert, Kathrin Sinnigen, H. Kluge and A.S. Mueller – Halle (Saale)
28. **Multi-carbohydase and phytase supplementation improves growth performance and liver insulin receptors sensitivity in chickens fed diets containing full-fat rapeseed**
D. Józefiak, S. Kaczmarek, A. Ptak, P. Maćkowiak and B. A. Slominski – Poznań/Winnipeg

- 29. Ceecal response of chickens fed diet with combined addition of carbohydrases and mannanoligosaccharides**
 Agila Semaskaite, R. Gruzauskas, J. Juskiwicz, Z. Zdunczyk, Virginija Jarule, Vilma Sasyte and Asta Raceviciute-Stupeliene – Kaunas/Olsztyn
- 30. Fermentation processes in the caeca of chickens fed diets with combined addition of NSP-degrading enzymes and organic acids**
 R. Gruzauskas, Agila Semaskaite, Virginija Jarule, Vilma Sasyte, Asta Raceviciute-Stupeliene, Z. Zdunczyk, J. Juskiwicz and Monika Wróblewska – Kaunas/Olsztyn
- 31. Effects of liquorice (*Glycyrrhiza glabra* L.) and crude fibre concentrate on growth and carcass composition of broiler chickens**
 Ingrid Halle, U. Bauermann and R. Thomann – Braunschweig/Bergholz-Rehbrücke
- 32. Effect of dietary supplementation with β -carotene, lutein and lycopene on the immune function of Japanese quails**
 Ivett Jung, Cs. Szabó, Annamária Kerti and L. Bárdos – Gödöllő
- 33. Effect of different vitamin D sources and levels on performance and mineral digestibility in grower-finisher pigs**
 Anne-Kathrin Marion Witschi, S. Gebert, G.M. Weber and C. Wenk – Zurich
- 34. Effects of rare earth elements (REE) on proliferation of bovine peripheral blood mononuclear cells (PBMC) after *in vitro* and *in vivo* exposure**
 Lydia Renner, Annett Schwabe, Susanne Döll and S. Dänicke – Braunschweig
- 35. Effect of a live yeast, *Saccharomyces cerevisiae* I-1077, used as a feed additive for ruminants, on *in situ* ruminal digestibility of alfalfa hay and fibre-associated microorganisms**
 Frédérique Chaucheyras-Durand, Aurélie Ameilbonne, Pascale Mosoni and Evelyne Forano – Saint-Genès Champanelle/Blagnac

Section 4 Energy metabolism

- 40. Energy metabolism in newborn calves during the first days of life measured by indirect calorimetry**
 Julia Steinhoff, Inge Workel, M. Derno and H. M. Hammon – Dummerstorf
- 41. Metabolic and endocrine profiles of cows grazed on pasture or fed grass indoors**
 Luzia D. Kaufmann, A. Münger, H. Anette van Dorland, R. M. Bruckmaier and Frigga Dohme – Posieux/Bern
- 42. Behaviour of sheep grazing at different intensities in the Inner Mongolian steppe, China**
 L. Lin, K. Müller and A. Susenbeth – Kiel

Section 5 Digestion and gut microbiology

- 50. *In vitro* growth and survival rate of the rumen protozoal species *Entodinium caudatum*, *Epidinium ecaudatum* and *Eudiplodinium maggii* in four different cultivation media**
 Johanna O. Zeitz, L. Meile, T. Michałowski, M. Kreuzer and Carla R. Soliva – Zurich/Jablonna
- 51. Effect of freezing on fermentation activity and fermentation patterns of equine faeces as inoculum in the semi-continuous fermentation technique Caesitec**
 Ann-Marie Müller, Diana Gall, Sabine Bremer, Kristin Romanowski and Annette Zeyner – Rostock
- 52. The use of natural *n*-alkanes as digestibility markers in sows**
 M. Bulang, Emmrich T., Scheffler K., Kneisel S., H. Kluge and J. Broz – Halle (Saale)/Basel
- 53. The effect of three betaine sources on *in vitro* fermentation of different carbohydrate and protein combinations using faecal inocula from pigs**
 Franziska Rink, Eva Bauer, Meike Eklund and R. Mosenthin – Stuttgart-Hohenheim
- 54. Content of nutrients and glucosinolates, nutrient digestibility and energy density of untreated and ethanolic treated rape seed meal in growing pigs**
 Kirsten Buesing, W. Hackl, Antje Pripke, G. Fleck and Annette Zeyner – Rostock/Dummerstorf/Magdeburg
- 55. Effects of divercin on the gastrointestinal microflora and performance of broiler chickens**
 D. Józefiak, S. Kaczmarek, A. Rutkowski, A. Sip and R. Gruel Engberg – Poznań/Aarhus
- 56. Impact of feather ingestion of laying hens on intestinal microbiota and microbial metabolites**
 Beatrice Meyer, Alexandra Harlander-Matauschek, W. Vahjen and J. Zentek – Berlin/Stuttgart-Hohenheim

POSTERS

57. **Caecal fermentation characteristics of growing turkeys fed diets with a different content of sunflower meal without or with the addition of carbohydrases**
J. Jankowski, J. Juskiwicz, Agata Lecewicz and Z. Zdunczyk – Olsztyn

Section 6 Free topics

61. **Relationship between average litter birth weight and intra-litter weight variability on organ weight development and myogenesis in pigs**
C. Pardo-Mariño, M. Kreuzer and G. Bee – Posieux/Zurich
62. **Ingestion of the flavonol quercetin decreases the bioavailability of the HMG-CoA reductase inhibitor simvastatin in pigs**
Silvia Wein, S. Wolffram, P. Langguth and R. Cermak – Kiel/Mainz/Leipzig
63. **Determination of B-vitamins in blood serum of dairy cows and evaluation of B-vitamin serum level changes throughout 24 h**
Wiebke Bigalke, Liane Hüther, M. Spolders, S. Dänicke and G. Flachowsky – Braunschweig
64. **Development of a liquid-chromatography-tandem mass spectrometry (LC-MS/MS) method for analysis of very low stable isotope enrichments (0.01 – 0.5 MPE) of [²H₅]-phenylalanine in physiological samples**
Katrin Wilkerling, Hana Valenta and S. Dänicke – Braunschweig

Section 7 Lipids and fatty acids

70. **Effect of rumen-protected conjugated linoleic acids (CLA) on adipose depot distribution and liver weight of dairy cows**
D. von Soosten, U. Meyer, G. Flachowsky and S. Dänicke – Braunschweig
71. **Supplementation effects of rumen protected conjugated linoleic acids on fatty acid distribution of liver and adipose tissue in dairy cows during lactation**
R. Kramer, S. Dänicke and G. Jahreis – Jena/Braunschweig
72. **Investigations with dairy cows on effects of calcium salts of fatty acids or prilled fat on milk yield and milk composition with emphasis on *trans*-fatty acids**
Antje Reichetanz, B. Pieper, M. Gabel and Annette Zeyner – Rostock/Wuthenow
73. **A response of colostrum and milk conjugated linoleic acid isomers profiles to different protein levels in goat diets**
M. Czauderna, J. Kowalczyk, J.P. Michalski and K.A.Krajewska – Jabłonna
74. **The effect of *Camelina sativa* supplementation to dairy ewes on milk fatty acid composition**
Malgorzata Szumacher-Strabel, A. Cieslak, P. Zmora, Emilia Pers-Kamczyc, Sylwia Bielinska, M. Staniszc and J. Wojtowski – Poznan
75. **Effect of different pastures or indoor feeding on fatty acid composition of beef**
G. Schlegel, M. Schuster and F.J. Schwarz – Freising-Weihenstephan/Grub
76. **The effect of genetic selection and dietary polyunsaturated fatty acids on Fatty Acid Synthase (FAS) and Peroxisome Proliferator Activating Receptor γ (PPAR γ) expression in abdominal adipose tissue of mice**
H. Bergmann, Karin Nürnberg, D. Dannenberger and Korinna Huber – Hannover/Dummerstorf
77. **Hyperlipidemia in Marmoset Monkeys is accompanied by symptoms of metabolic syndrome**
Christina Schlumbohm, F.Liebert, Anna Mitura and E. Fuchs – Göttingen
78. **A new internal standard for improved monitoring of the efficiency of liquid chromatographic analysis of fatty acids containing conjugated double bonds in biological samples**
M. Czauderna, J. Kowalczyk, J.P. Michalski, K.A. Krajewska and A.J. Rozbicka-Wieczorek – Jabłonna

Section 8 Effects on environment

83. **Einfluß einer Rohproteinverminderung in Futtermischungen auf die Produktions-
ergebnisse, Konformation und N-Exkretion von Mastschweinen (PLW x PL) x (Ha x Pi)**
M. Kasprowicz-Potocka and A. Frankiewicz – Poznan
84. **Studie zur Hemmung der ruminalen Methanbildung mittels verschiedener in der Natur
vorkommender Substanzen unterschiedlicher Herkunft *in vitro***
Carla R. Soliva, S. L. Amelchanka, S. Duval and M. Kreuzer – Zurich/Kaiseraugst
85. **Screening von potentiellen Inhibitoren der Methanogenese mittels HFT**
G. Wischer, Jeannette Boguhn, H. Steingaß and M. Rodehutschord – Stuttgart-Hohenheim
86. **Reaktion der methanogenen Pansenpopulation auf Linolensäure *in vitro***
A. Cieslak, P. Zmora, Emilia Pers-Kamczyc, Barbara Nowak and Malgorzata Szumacher-Strabel
– Poznan

Section 9 Feedstuff evaluation and feeding

95. **Barley grain-based diets processed with lactic acid modulated plasma metabolites and
mediators of innate immunity in dairy cows**
Q. Zebeli, Summera Iqbal, A. Mazzolari, Suzanna M. Dunn and B. N. Ametaj – Edmonton
96. **Periparturient metabolism, health and fertility in SB dairy cows with different milk yields**
F. Heckel and M. Fürll – Leipzig
97. **Quality and suitability of buckwheat and chicory silage as a forage for dairy cows**
Tasja Kälber, M. Kreuzer and F. Leiber – Zurich
98. **Significance of trees and shrubs in the diet of cattle and goats pasturing in the
surroundings of the Bandhavgarh National Park, India**
Jana L. Müller, P.L. Saklani, M.M. Babu, M.K. Tripathi, Andrea C. Mayer, M. Kreuzer and Svenja
Marquardt – Zurich/Dehradun/Avikanagar
99. **Effect of the concentration of condensed tannins in different sainfoin accessions grown at
three sites on *in situ* ruminal degradation kinetics of dry matter and crude protein**
R B.N. Azuhwi, B. Thomann, Y. Arrigo, B. Boller, H.D. Hess, M. Kreuzer and Frigga Dohme –
Posieux/Zurich
100. **Effect of supplementing maize silage with urea on characteristics of fermentation *in vitro***
B. Hildebrand, Jeannette Boguhn and M. Rodehutschord – Stuttgart
101. **Comparison of the ruminal degradability of different components of the maize plant**
Abdallah Metwally and F.J. Schwarz – Freising-Weißenstephan
102. **The effect of berry seeds after CO₂ extraction in supercritical conditions on rumen
metabolic responses *in vitro***
P. Zmora, A. Cieslak, E. Rójs, Emilia Pers-Kamczyc, M. Pyrski, M. Hejdys and Malgorzata
Szumacher-Strabel – Poznan
103. **Effect of diet C/N and NDF/soluble carbohydrates ratio on dung composition in *Bubalus
bubalis***
H. al Asfoor, Anne Schiborra, A. Sundrum and Eva Schlecht – Kassel-Witzenhausen
104. **Effect of free air carbon dioxide enrichment (FACE) and water stress during cultivation on
the *in sacco* degradability of ensiled maize harvested at various times**
M. Lohölter, U. Meyer, P. Lebzien, R. Manderscheid, H.-J. Weigel, G. Pahlow, G. Flachowsky
and S. Dänicke – Braunschweig
105. **Electromyographic evaluation of masseter muscle activity in horses fed with different
types of roughages**
Ingrid Vervuert, Nathalie Brüssow, Mandy Bochnia, Teresa Hollands, D. Cuddeford and M.
Coenen – Leipzig/Hannover/Ringstead
106. **Nutrient digestibility in a diet of young stallions, as established under field conditions with
the internal marker acid insoluble ash (AIA)**
D. Koslowski and F. Liebert – Göttingen
107. **Cassava byproduct utilization in growing pigs: Effects of enzyme addition and
fermentation**
O.S. Akinola, A.O. Fanimu, J.A. Agunbiade, A. Susenbeth and Eva Schlecht –
Abeokuta/Kiel/Kassel-Witzenhausen
108. **Application of spray dried porcine blood products and bone protein in laying hens feeding**
J. Orda, Dorota Jamroz, A. Wiliczkiwicz and Jolanta Skorupińska – Wrocław
109. **Effect of lignin as a feed additive on performance, organ weights and NH₃- formation in a
broiler study**
Janina S. Meier, B. Bucher and C. Wenk – Zurich

- 110. Zootechnical performance and carcass characteristics of broiler chicks fed distillers dried grain with solubles (DDGS)**
K. Schedle, Vera Guggenberger, R. Leitgeb and W. Windisch – Wien
- 111. Basic data for factorial derivation of energy and nutrient requirements for egg production in psittacines and passeriformes**
Anna Loesgen, Annett-C. Häbich and J. Kamphues – Hannover
- 112. Effects of high dietary level of soybean meal on development and severity of foot pad dermatitis (FPD) in growing turkeys housed on dry and wet litter**
I.M.I. Youssef, A. Beineke and J. Kamphues – Hannover
- 113. Effect of corn endosperm hardness, drying temperature and microbial phytase and xylanase supplementation on the performance of broiler chickens**
S. Kaczmarek, D. Józefiak, A. Rutkowski and A. Cowieson – Poznań/Marlborough
- 114. Nutritional and physiological evaluation of the dietary inclusion of *Jatropha platyphylla* Müll. Arg. kernel meal in Nile Tilapia (*Oreochromis niloticus* L.)**
O. Oyeleye, V. Kumar, H. P. S. Makkar, A. Akinleye, M.A. Angulo-Escalante and K. Becker – Stuttgart-Hohenheim/Sinaloa
- 115. Effect of grinding intensity (coarse/fine) and diets' physical form (mash/pellets) on buffering capacity and further parameters of gastric ingesta at the pars nonglandularis in young pigs**
Anne Mößeler, M. Wintermann, Sylvia Köttendorf, Saara Betscher, Stefanie Hansen, Linda Öhlschläger and J. Kamphues – Hannover
- 116. Investigations on dietary influences on pH-values in the urine of dwarf rabbits**
Christina Paulus, Petra Wolf and J. Kamphues – Hannover
- 117. Gamma-oryzanol (a naturally occurring compound of rice oil) – an anabolic substance? Studies in growing fattening rabbits (regarding body composition) and horses (serum testosterone level)**
Silke Licht, Anne Mößeler, L. Wilhelm and J. Kamphues – Hannover/Geesthacht
- 118. Effects of varying levels of lipid and starch on growth performance and body composition in juvenile burbot (*Lota lota* L.)**
H. Wocher, A. Harsányi and F.J. Schwarz – Lindbergmühle/Freising-Weihenstephan
- 119. First steps in development of a complete laboratory diet for common marmoset monkeys**
Anna Mitura, F. Liebert, Christina Schlumbohm and E. Fuchs – Göttingen
- 120. Changes in pelleted feed acceptance due to flavouring a complete laboratory diet for the common marmoset monkey**
Anna Mitura, F. Liebert, Christina Schlumbohm and E. Fuchs – Göttingen

Section 10 Transport and epithelial physiology

- 125. Isolated Ruminal Epithelial Cells of the Sheep Express a Channel Permeable to the Anions of SCFA**
M. I. Georgi, F. Stumpff and H. Martens – Berlin
- 126. *In vitro* effects of zinc sulfate on epithelial properties of intestinal cells: influence of culture conditions and application side**
Ulrike Lodemann, Angelika Bondzio, Ralf Einspanier and Holger Martens – Berlin
- 127. Pathways and regulation of gastrointestinal potassium (K) transport in ruminants**
Nina Kronshage and Sabine Leonhard-Marek – Hannover
- 128. Effects of colostrum versus formula feeding on mucosal growth, glucose transporter and lactase in the small intestine of neonatal calves**
Julia Steinhoff, R. Zitnan, Ulrike Schönhusen and H. M. Hammon – Dummerstorf/Kosice

Section 11 Undesirable substances

- 133. No indication for a transplacental transfer of deoxynivalenol (DON) or its metabolite de-epoxy-DON in dairy cows**
Susanne Döll, Lydia Renner, U. Meyer, Hana Valenta and S. Dänicke – Braunschweig
- 134. Altered gene expression in the liver of broilers fed naturally Deoxynivalenol-contaminated wheat**
B. Dietrich, B. Bucher and C. Wenk – Zurich
- 135. Effect of ensilage on canavanine reduction in soaked grains of *Canavalia ensiformis* sole or mixed with *Sorghum bicolor***
L.A. González Díaz, Sandra Hoedtke, A. Castro Alegría and Annette Zeyner – Rostock

General remarks

1. Venue

Central lecture building (ZHG), Lecture hall 008, University of Göttingen, Platz der Göttinger Sieben 5 (Weender Straße – Kreuzbergring), Göttingen

2. Presentations

Conference languages are German and English. All speakers are restricted to 10 minutes, followed by 5 minutes of discussion. **All presentation sheets and posters should be prepared in English – also, if the lecture is held in German.** Posters have to be fixed at the board at the beginning of the conference. During the poster sessions, which are scheduled in the programme, the authors have to be present at their posters for discussion.

3. Accomodation

It is possible to make some reservations for accomodation via <http://germany.nethotels.com/info/goettingen/events/gfe-tagung2010> (until 10th February 2010)

4. Registration

Please register at the latest **until 4th March 2010**: D-60489 Frankfurt/Main, Eschborner Landstr. 122. You may use our homepage: www.gfe-frankfurt.de for registration; in exceptional cases you can register by phone at 0049 (0)69/24788-322

5. Conference fee

Non-members: € 130 (discount for members of public authorities 50 %),
Day ticket € 90,
Members and their assistants € 60,
Students € 20.

Please transfer the conference fee to the following bank account:

Account holder: Gesellschaft für Ernährungsphysiologie
Bank name: Frankfurter Volksbank eG, Frankfurt a. Main,
Bank number: 501 900 00
Account number: 7000017145
SWIFT-BIC: FFVBDEFF, IBAN: DE6050190000.

6. Meetings of the executive board

according to special invitation at 9th March 2010 and 11th March 2010

7. Meeting of members

according to special invitation at 10th March 2010 in Lecture hall 008.

8. Conference office

0049 (0)551/399595