

## Editorial news and events

### **Book review**

Proceedings of the Society of Nutrition Physiology, Vol. 20, Society of Nutrition Physiology (Ed.) DLG-Verlag Frankfurt (Main) (2011). 176 pp., Price: 29,90 € plus postage, Softcover, ISBN: 978-3-7690-4104-1

The 65<sup>th</sup> Annual Meeting of the Society of Nutrition Physiology of Germany was held at Goettingen from March 15 - 17, 2011.

The proceedings of the meeting comprise a review paper entitled “Energy demand and energy metabolism in the immune system” by B. Kaspers from the Ludwig-Maximilians-University Munich, Germany, 121 abstracts and 5 contributions to the workshop “Effects of feed processing in PIGS and poultry nutrition.”

The author of the review paper analysed the progress in the identification and functional characterization of the immune cells, soluble signals and effectors molecules during the last 50 years. The results show that the immune system is not only controlled by genetic factors but also by a broad range of environmental determinants including as over- and under-nutrition. The author devoted special attention to amino acids, lipids, glucose as well as vitamins and trace elements.

Among domestic animals the dependence of the immune system on an adequate energy supply is best studied in ruminants during the periparturient period. All the results have shown that an adequate energy metabolism is of particular importance for a fully functional immune system. Recently, investigations of the underlying molecular mechanism have begun and have largely focused on the T-lymphocytes. Activation of T-cells was shown to be associated with consumption of large amounts of energy. Based on the present stage of knowledge the author concluded that more research is necessary to better understand immunosuppression in domestic animals during the status of the negative energy balance.

The peer reviewed abstracts (one page each) are devoted to the following topics:

1. Amino acids and nitrogen (10 contributions),
2. Energy (11 contributions),
3. Digestion (6 contributions),
4. Transport and epithelial physiology (10 contributions),
5. Minerals (14 contributions),
6. Undesirable substances (9 contributions),
7. Fatty acids (15 contributions),
8. Feed additives (10 contributions),
9. Methane (5 contributions),
10. Feedstuff evaluation and feeding (21 contributions),
11. Free topics (10 contributions).

Most of the papers presented are from scientists at German institutes of animal nutrition and animal physiology, but contributions are also included by scientists from other European countries as well as from overseas.

The workshop dealt with effects of feeding processing in PIGS and poultry nutrition. Starting with technological aspects of feedstuff comminuting and compacting the authors analysed the nutritional impact of feed particle size in diets of pigs, the relationship between particle size and nutrient digestion in poultry, the influences of the physical form of feed on anatomical, histological and immunological aspects in the gastrointestinal tract of pigs and poultry, and finally, the effects of physical form of feed on the health of the gastrointestinal tract in pigs and poultry. The authors analysed pros and cons of feed particle size in diets of non-ruminants and concluded that modifying a diet in its physical form is not seldom accompanied by side effects like reduced pellet stability, fluidity of stored diets and feed intake and performance of animals, but also demixing processes, feed losses (due to spillage/dust formation) and nutrient losses *via* excreta. Therefore, the question on the best physical form of a diet is not only a challenge for nutritionists, it is also a subject of animal welfare, of veterinary clinical relevance and of feed safety. Furthermore, it is also a question of energy efficiency and emissions from the feed mills.

The proceedings review current research activities in animal physiology and animal nutrition in Central Europe and are recommended to all those working in animal nutrition and animal physiology. The Proceedings of the 65<sup>th</sup> Meeting (Vol. 20, 2011) are available from the DLG-Verlag, Eschborner Landstraße 122,

The next meeting of the Society of Nutrition Physiology of Germany (the 66<sup>th</sup>) will be held in Goettingen from March 20 -22, 2012.

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