

## **Kurzbeschreibung der Inhalte des DRS Seminars 08 1**

### **Interactions between nutrition, gastrointestinal microbiota and host in monogastric farm animals**

**W. Vahjen**

**(1CP, 1SWS)**

This course will describe the basic interactions between intestinal bacteria and their hosts with special emphasis on piglet nutrition. After an introduction of the members of the intestinal microbiota and their metabolic functions, bacterial interactions with nutrients will be discussed. The effect of feed additives (enzymes, probiotics, trace elements) on the intestinal microbiota are also presented. The course concludes with a comprehensive overview over established and developing methods and their applicability for the analysis of the intestinal microbiota.

This course is intended for all students interested in the influence of the intestinal microbiota on their hosts. It will present the current state of research in a basic manner without the need for advanced knowledge in microbiology.

The lectures will be held at the Institute of Animal Nutrition, Königin-Luise Str. 49, 14105 Berlin. The length of each lecture will be 90 minutes. Maximum participants: 30

#### **Index of contents:**

1. Intestinal microbiota and identification methods
2. Bacterial interactions with carbohydrates
3. Bacterial interactions with fats and proteins
4. Feed additives in animal nutrition
5. Bacterial interactions with feed enzymes
6. Bacterial interactions with probiotics and trace elements
7. Aspects of practical science and summary

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