WORKSHOP

Interaction between GI tract microbe and piscine host

消化道微生物与鱼源宿主互作国际研讨会

Beijing, China • 9-10 April 2013

ORGANIZER

[1]Innovative Direction of Aqua Feed & Feed Additive,

[2]Key Laboratory for Feed Biotechnology of the Ministry of Agriculture,

Feed Research Institute of Chinese Academy of Agricultural Sciences

Background:

A more complete use of food resources and available space is achieved in the present aquaculture system, particularly in China. However, such aquaculture mode always results in high stocking density and consequently may depress the immune system (cellular and humoral immune) of piscine host and increases their susceptibility to diseases. It has been known that the gut microbe plays an important role in providing nutrients, regulating epithelial development, and instructing innate immunity. However, although more and more scientists are revealing the full pictures of these biological effects, we still know few about the characterization/mechanism of these interactions. The purpose of this workshop is attempted to provide an overview of "Interaction between GI tract microbe and piscine host", including (but not limited to);

a) Techqiues to encode gut microbe;
b) The physiological structures of fish gastrointestines and where is the gut microbe (allo, auto, invasion, translocation, etc.);
c) Interaction between gut microbe and host fish (nutrition, immunity, disease protection, endocrine, etc.);
d) Different testing models (*in vivo*, *in vitro*, *ex vivo*, cells; gnobiotic animals);
e) The future of this field.

Organized by:

Innovative Direction of Aqua Feed & Feed Additive, Key Laboratory for Feed Biotechnology of the Ministry of Agriculture, Feed Research Institute of Chinese Academy of Agricultural Sciences.

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Exclusive sponsorship:

Novus International, Inc.

Venue/Contact:

The conference room in the1st floor of the Feed Research Institute of Chinese Academy of Agricultural Sciences, Beijing, China;
Mr. **Suxu He**, email: **hesuxu@caas.cn**, phone: **+86-10-82106089**.

PROGRAM

Tuesday 9 April

08:30-08:40	Opening ceremony
SESSION 08:40-9:40	***Chair – Daniel Merrifield*** Invited speaker **Immune responses of salmonid fish to an intestinal parasite *Ceratomyxa shasta*** Prof. *Yongan Zhang* Institute of Hydrobiology, CAS
09:40-10:40	Invited speaker **The role of microbe in gastrointestinal amino acid metabolism** Dr. *Zhaolai Dai* Texas A&M University/China Agricultural University
10:40-10:50	**COFFE BREAK**
10:50-11:50	Invited speaker **Dietary modulation of the gut microbiota of fish** Dr. *Daniel Merrifield* Plymouth University
11:50-12:00	General discussion
12:00-14:00	LUNCH
SESSION 14:00-15:00	***Chair – Zhigang Zhou*** Invited speaker **Mechanism of cellulosic digestion in the intestine of grass carp (*Ctenopharyngodon idellus*)** Dr. *Shangong Wu* Institute of Hydrobiology, CAS
15:00-16:00	Invited speaker **The probiotics and gut microbe in grouper** Dr. *Yunzhang Sun* Jimei University
16:00-16:10	**COFFE BREAK**

16:10-17:10 Invited speaker

Probiotics and microbial succession in the intestines of cultured fish and water

Dr. *Xiaoping Zhang*

Zhejiang University

17:10-17:30 **Ex vivo models for assessing feed additives and disease resistance**

Dr. Samuel Voller

Plymouth University

18:00-20:00 Dinner

Wednesday 10 April

SESSION ***Chair –Ooi Ei Lin***

08:30-9:30 Invited speaker

Effects of dietary essential oil on production, immunity, gut microbiota, and disease resistance of tilapia, *Oreochromisniloticus*

Dr. *Ooi Ei Lin*

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09:30-10:30 Invited speaker

Comparison of adhesive gut bacteria, immunity, and disease resistance in juvenile hybrid tilapia fed different *Lactobacillus* strains

Prof. *Zhigang Zhou*

Feed Research Institute, CAAS

10:30-10:40 **COFFE BREAK**

10:40-11:40 Invited speaker

NGS & Microbial Communities

Prof. *Yong Zhao*

University of Toronto/Beijing Computing Center

11:40-12:00 General discussion

12:00-14:00 LUNCH

SESSION ***Chair –Yunzhang Sun***

14:00-15:00 Invited speaker

The intestinal tight junction of grass carp (*Ctenopharyngodon idellus*)

Dr. Fan Xu

Suzhou University

15:00-16:00 Invited speaker

Composition and spatial structure of the gastrointestinal mucus layers in domestic animal

Dr. Guifang Dong

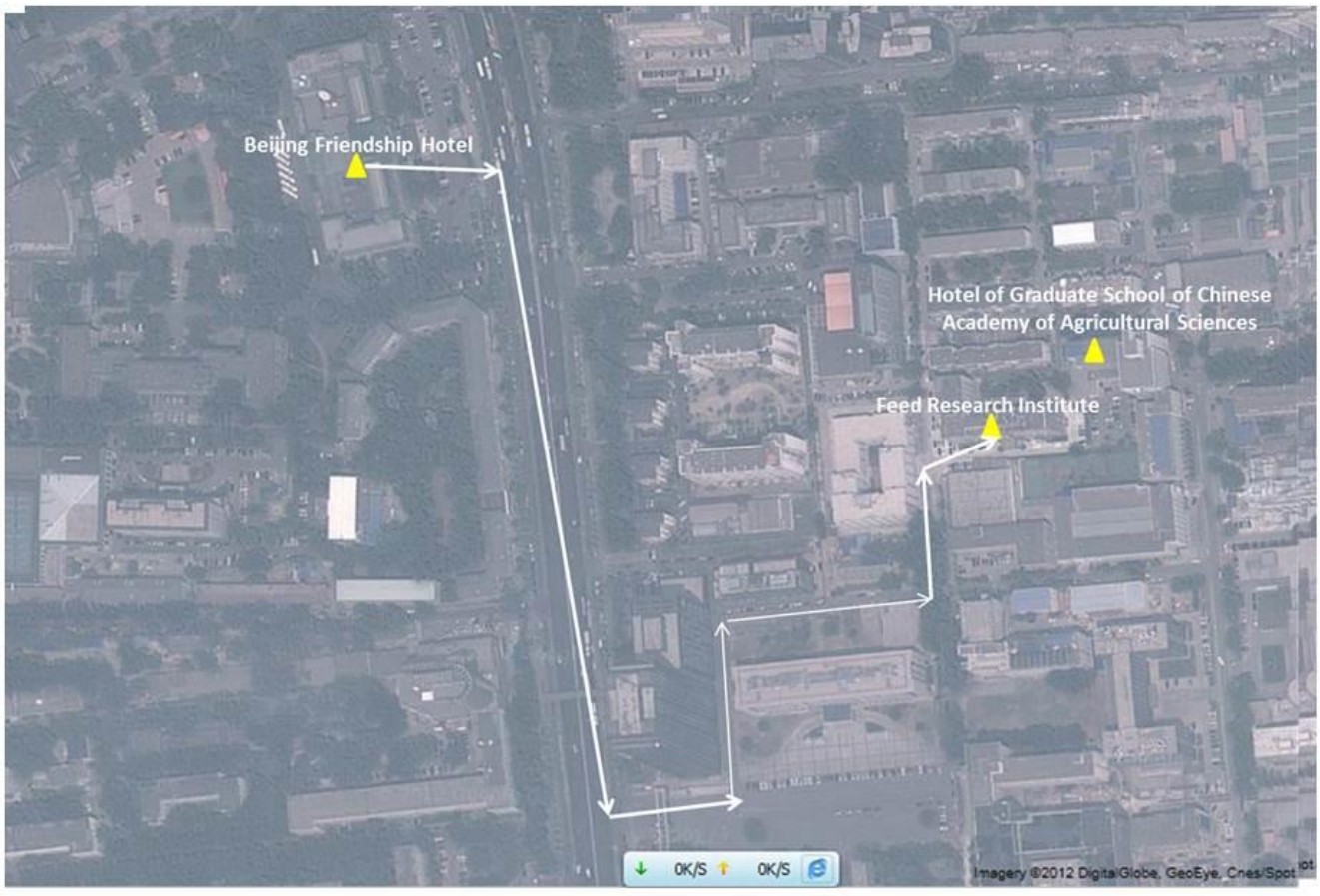
Wuhan Polytechnic University

16:00-16:10 **COFFE BREAK**

16:10-16:30 *For volunteer* (Submission deadline Friday 5 April)

16:30-16:50 *For volunteer* (Submission deadline Friday 5 April)

16:50-17:10 *For volunteer* (Submission deadline Friday 5 April)

17:30-19:30 Dinner

Map of Feed Research Institute of Chinese Academy of Agricultural Sciences
(By walk about 10 min from Beijing Friendship Hotel to FRI)