Practical Experiences of a Cooperation between Veterinary Education Establishments

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CONTENTS:

1. Introduction, historical aspects of the cooperation
2. Teaching subjects – changed over the years
3. From animal health to animal welfare
4. Research projects and publications
5. Exchange of students and staff
6. Training good welfare in practice
7. Experiences to do better – the Skills Lab
8. Current and future activities
Introduction:
Animal Welfare is a global issue and refers to farm animals as well as to pets and companion animals. It has become and will continue to be one of the most important tasks of veterinarians.

Teaching and cooperation requires knowledge, trust and understanding.

Driving forces in animal welfare legislation and research are
- O.I.E. and its initiatives in Animal Welfare
- the European Union (laws and regulations), AUS, NZL and few others
- numerous NGOs which are active in this field and last but not least
- people (citizen and consumer) want more “quality of life” for animals: as livestock, pets, working aids, laboratory animals, in sports, in zoos, or else

However, there are large differences in the world, socially, economically, culturally, politically, in terms of religion, etc. and we have to take that into account.

With increasing living standard people are getting more concerned about the welfare of animals.
Introduction:
There are large differences how people treat and use animals in the world.

They are (mis)used as pets or desperately needed for food.
Introduction:

And there are different Views of Animal Welfare:

- Ethical-moral approach
- Juridical approach
- Emotional approach
- Scientific approach

Means:
When we from Hannover went to Nanjing, China we came with a mission but not as missionaries.

We did not want to make people a bad conscious, we wanted to improve Animal Welfare on sound scientific grounds.
Nanjing Agricultural University (NAU): Teaching and Research founded 1902

5 University Sites:
- New Campus
- Field Station for Epidemiology
- Institute for Terrestrial and Marine Wild Life Research

Research and teaching farm Ruthe
- Dairy
- Laying hens
- Ducks
- Turkeys
- Broilers
- Pigs

University of Veterinary Medicine Hannover founded 1778

Old Campus
The Main Topics
Of the First Memorandum of Cooperation NAU and TiHo
was signed in June 20, 1987 by
Prof. Dr. Dajun Liu, University President / Prof. Dr. E. Grunert, Rector Magnificus

Main Topics related to Animal Health
Both sides express the wish to establish inter-university relations between TiHo and NAU.

JOINT RESEARCH
- Animal Physiology
- Chinese Traditional Medicine i.e. acupuncture
- Clinical Veterinary Medicine - Infectious Diseases
- Animal Husbandry and Genetics - Animal Pathology,
- Animal Anatomy - Immunology, Endocrinology

EXCHANGE OF SENIOR STAFF, JUNIOR STAFF AND STUDENTS
WRITING SCIENTIFIC PUBLICATION
中华人民共和国 南京农业大学 与 德意志联邦共和国 汉诺威兽医学院
合作协议书

中华人民共和国南京农业大学与德国联邦共和国下萨克森州汉诺威兽医学院通过谈判，达成南京农业大学与汉诺威兽医学院的合作协议书如下：

一、两校在教学和科研科学家交换合作；
二、学生交换的交流；
三、为实现中德两国促进科研联合研究持续提供帮助。

鉴于上述合作的需要和条件的成熟，双方同意就合作项目工作，定期与南开大学校长协商，尽可能促进合作的友谊。合作项目有：

本协议须经中华人民共和国教诲部以及汉诺威兽医学院评议会共同签字后，两校之间正式合作开始生效。

本协议有效期自一九八七年六月十九日至协议签订日起两年。一份中文，一份用德文写成，两校文件具有同等效力。

南京农业大学校长 高教

汉诺威兽医学院

(签名)
Since 1997 cooperation with Prof. Endong Bao started, involved also Prof. Lu and Prof. Haibin Zhang.


In 2000 research project on “HSP expression in transported pigs and heat stress in broilers”.

Regular teaching visits and longer research periods, Prof. Bao’s graduates, and PhD students in labs in Hannover. Combining teaching and research.

Renewal of Agreements of Cooperation between NAU and TiHo in 2007 and 20th October 2012
Teaching at NAU and TiHo:

1. Regular teaching for students: Animal welfare, Introduction to Animal Protection (36 lessons). Prof. Lu and Dr. Rongmei Fei. Protection of
   farm animals, fish,
   pets, horses,
   animals in zoos,
   wild animals, stray animals,
   working animals,
   laboratory animals.

Behavioural disorders, pain and legal aspects.


2. Approbation Scheme in Veterinary Medicine TiHo (5 ½ years)
   Animal Welfare 56 lessons
   Ethology 28
   Animal Hygiene and Animal Husbandry 56
Teaching topics in Animal Welfare and Behaviour

1. Legal Requirements: Laws, regulations, EU, Europe
   - animal protection law, Germany
   - legal regulations national and EU on broilers, pigs, calves, laying hens,
   - on slaughter, transport

2. Needs of Animals, Five freedoms, Welfare indicators

3. Behavioural Disorders

4. Handling of Food Animals and Treating Pet Animals

5. Animal welfare and housing conditions: techno-pathologies

6. Examples of practical and technical solutions (eg. PLF)
List of publications: 20 ref. Journal Publications, 
11 Conference Proceeding papers, 
3 papers submitted or under revision

Recent examples:
Clinical Skills Lab - Examples

i.v. injection, dog leg model

Intubation, dog model

Study of inner organs, horse model
Lab course: intubation dog
Present projects NAU – TiHo Hannover:
1. Expression of Hsps and stress damages induced by heat in myocardial cells.
2. Role of Hsp expression in the sudden death syndrome of transported pigs.
3. Measurement and reduction of airborne transmission of dust and micro-organisms incl. zoonotic agents within and from intensive animal production.

Current and Future activities:
1. Continue teaching students, post-graduates and post-docs in animal hygiene, health care, animal welfare and environmental protection at NAU and TiHo.
2. Two PhD students from China are working at the Institute AW in Hannover.
3. One post-doc will come beginning next year for further education to TiHo.
4. Support by the Sino-German Cooperation Programme in Agriculture.
5. Extending activities of ISAH (International Society for Animal Hygiene) for more research and teaching in animal health and welfare.

Animal welfare is still like a young chick but ready to grow fast:
We are looking forward to further fruitful years of cooperation in Animal Welfare for the sake of animal and man.

We need **knowledge**, **science** and **professional veterinary excellence** but also **patience** and **trustful cooperation** to be able to look across the fence.

Thank you for your attention