

# **Traditional Chinese Veterinary Medicine**

Empirical Techniques to Scientific Validation

## **Proceedings of**

**The First International Conference on Traditional Chinese Veterinary Medicine**

**The 12<sup>th</sup> Chi Institute Annual Conference**

### **Sponsored by**

Institute of TCVM, Chinese Academy of Agricultural Sciences, *Lanzhou, China*

Chi Institute of Chinese Medicine, *Florida, USA*

**Edited by:** Zhiqiang Yang and Huisheng Xie

**Lanzhou, China  
September 13 to 16, 2010**

**Jing Tang Publishing**

Edition first published 2010

© 2010 Jing Tang Publishing

The publisher, editors, and authors are not responsible (as a matter of product liability, negligence, or otherwise) for any injury resulting from any material contained herein. This publication contains information relating to general principles of medical care which should not be construed as specific instructions for individual patients. Manufacturers' product information and package inserts should be reviewed for current information, including contraindications, dosages, and precautions.

ISBN: 978-1-934786-26-0

Published and distributed by  
Jing Tang Publishing  
9700 West Hwy 318  
Reddick, FL 32686  
[www.tevm.com](http://www.tevm.com)  
Tel: 352.591.2141  
Fax: 352.591.2854

Printed by Tianjin Huanheng Color Printing Technology Development Co.,Ltd. Intersection of 13<sup>th</sup> Rd and Jintang Rd, Hedong District, Tianjin, China

All rights reserved. This book is protected by copyright. No part of this publication may be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system without written permission from the copyright owner.

## Table of Contents

<b>Contributors .....</b>	<b>vii</b>
<b>Preface .....</b>	<b>ix</b>
<b>Basic Scientific Research .....</b>	<b>1</b>
A Preliminary Study of the Relationship between the Cutaneous Electrogastrogram and Stimulation of ST-36 <i>Hou-San-Li</i> .....	3
<i>Jifang Zheng, Chaoying Luo, Zhe Qin</i> .....	3
Effects of the Chinese Herbal Medicine <i>Chan Fu Kang</i> on Hemorology in Dairy Cows with Qi Defficiency and Blood Stasis .....	9
<i>Zuoting Yan, Jiasheng Xie, Shihong Li, Dongsheng Wang, Guolin Yang, Jilan Liang, Sijiu Yu, Xiancheng Zeng, Xinrong Zhu, Daoshun Chen</i> .....	9
Clinical Trial on a new Chinese Herbal Compound on Treating Diarrhea in Calves .....	15
<i>Shuwei Dong, Yongming Liu, Zhiming Qi, Xia Li, Shixiang Liu, Shengyi Wang</i> .....	15
In Vitro and in Vivo Immune Stimulating Effects of a Polysaccharide from Potentilla Anserina Root ( <i>Jue Ma</i> ) .....	19
<i>Jiongran Chen, Zhiqiang Yang, Tingjun Hu, Zuoting Yan, Tingxian Niu ,Ling Wang, Dongan Cui, Meng Wang</i> .....	19
Isolation and Identification of Puerarin .....	29
<i>Ying Cui, Jian-ping Liang, Yansheng Guo</i> .....	29
Effect of Total Saponin of Panax Ginseng ( <i>Ren Shen</i> ) and its Derivative on Mouse Immunocytes .....	35
<i>Zhiting Guo, Xubin Wei, Jianping Liang, Xiaoqin Luo, Wenzhu Guo, Xuehong Wang, Yu Liu, Baocheng Hao</i> .....	35
The preparation of Herbal Formula <i>Genhuang</i> Dispersible Tablet.....	39
<i>Ruihua Xin, Yongjiang Luo, Jifang Zheng, Guibo Wang, Zhenying Hu, Wei Li</i> .....	39
Effect of the Extract of <i>Brucea Javanica</i> ( <i>Ya Dan Zi</i> ) on NO/cGMP in Murine Splenocytes.....	45
<i>Fusheng Cheng, Zhenying Hu, Ruihua Xin, Yujiang Luo, Pengcheng Dong, Xia Zhang</i> .....	45
A New Thought on Toxic Events of Chinese Herbal Medicine from the Perspective of Complexity Science .	51
<i>Chaoying Luo, Jifang Zheng, Zhenying Hu, Jiasheng Xie</i> .....	51
The Therapeutic Actions of Traditional Chinese Herbal Medicine Used for the Treatment of Respiratory Diseases .....	55
<i>Weerapongse Tangjitjaroen</i> .....	55
Studies On Antimicrobial Quantitative Structure-Activity Relationship Of Diterpene Quinone Compound From <i>Salvia Przewalskii</i> Maxim With Hansch And Free-Wilson .....	67
<i>Yongjiang Luo, Yanbing Shi, Ying Cui, Zhenying Hu, Ruihua Xin, Jifang Zheng</i> .....	67
Study on Acute Toxicity of Herbal Formula <i>Huangbai</i> Oral Liquid .....	71
<i>Xia Li, Yongming Liu, Zhiming Qi, Shengyi Wang, Shuwei Dong, Shixiang Liu</i> .....	71
Effect of Herbal Ru Yuan Kang on Pathogenic Bacteria Associated with Mastitis in Dairy Cows.....	75
<i>Xiaojuan Wei, Jiyu Zhang, Xuzheng Zhou, Jianyong Li, Jianrong Niu, Jinshan Li</i> .....	75
Physiopathological Basis of the Kidney Deficiency Patterns.....	79
<i>Songhua Hu</i> .....	79
Effects of Chinese Herbal Formula on Egg Production and Antioxidation Function in Hens .....	85
<i>Diao Xiaoping, Wang Yi, Yan Xiongtao, Gao Juan</i> .....	85

Chinese Veterinary Herbal Toxicity and Safety .....	87
<i>Huisheng Xie</i> .....	87
Is Acupuncture a Valid Treatment in Veterinary Medicine? .....	97
<i>Huisheng Xie</i> .....	97
Effect of a Combination of Acupuncture and Herbal Medicine on Wobbler Syndrome in Dogs and Horses .	103
<i>Huisheng Xie and Tiffany Rimar</i> .....	103
<b>Small Animals .....</b>	<b>115</b>
Inflammatory Bowel Disease According to Chinese Diagnostic Patterns .....	117
<i>Linda Boggie</i> .....	117
The Divergent Channels Introduction and Clinical Applications .....	123
<i>Linda Boggie</i> .....	123
How To Treat Megaesophagus, Megacolon .....	139
<i>Min Su Kim</i> .....	139
How To Treat Pancreatic Disorders In Dogs And Cats.....	141
<i>Min Su Kim</i> .....	141
Tcvm Food Therapy For Gi Disorders.....	145
<i>Lorena Lloret Nadal</i> .....	145
Renal Disease According To Chinese Diagnostic Patterns .....	151
<i>Linda Boggie</i> .....	151
Treating Renal Failure with TCVM.....	159
<i>Carolina Medina</i> .....	159
The Diagnosis and Treatment of Canine Intervertebral Disc Diseases (IVDD) with a Combination of Electro-Acupuncture and Drugs .....	161
<i>Guibo Wang, Peng Liu, Jifang Zheng, Chaoying Luo, Jinyu Li, Dongsheng Wang</i> .....	161
Tcvm Diagnosis And Treatment Of Intervertebral Disk Protrusion.....	167
<i>Dalu Song</i> .....	167
Canine and Feline Uroliths Treatment with Chinese Herbal Supplement “CrystaClair” .....	169
<i>Jiujia Wen, Karen A. Johnston</i> .....	169
TCVM Diagnosis and Treatment of Urinary Tract Infection and Urolithiasis .....	179
<i>Dalu Song</i> .....	179
TCVM Diagnosis and Treatment of Renal Failure in Dogs .....	183
<i>Dalu Song</i> .....	183
TCVM Diagnosis and Treatment of Ear diseases.....	187
<i>Dalu Song</i> .....	187
How to Use TCVM for the Treatment of Thoracolumbar Intervertebral Disc Disease.....	189
<i>Huisheng Xie</i> .....	189
How to Treat Degenerative Myelopathy (DM)?.....	197
<i>Huisheng Xie</i> .....	197
How I Treat <i>Wei</i> and <i>Bi</i> Syndrome with TCVM.....	203
<i>Bruce Ferguson</i> .....	203
<b>Exotic Animals .....</b>	<b>207</b>
TCVM Approach in Exotic Animals: GI Disorders.....	209

<i> Lorena Lloret Nadal</i> .....	209
<i> Bi, Wei and Lin Syndrome in Exotic Animals</i> .....	213
<i> Lorena Lloret</i> .....	213
<b>Large Animals</b> .....	<b>223</b>
Diarrhea in The Horse .....	225
<i> Yimin Lin</i> .....	225
Equine Colic .....	235
<i> Yimin Lin</i> .....	235
Impaction In The Horse.....	241
<i> Yimin Lin</i> .....	241
Equine <i> Bi</i> Syndrome.....	247
<i> Yimin Lin</i> .....	247
Lumbar Disease and Lameness in the Horse.....	253
<i> Yimin Lin</i> .....	253
Paralysis of the horse.....	263
<i> Yimin Lin</i> .....	263
Studies on the Treatment of Lameness in Horses by Acupuncture with Hot-Needle .....	271
<i> Jinyu Li, Guibo Wang, Chaoying Luo, Jifang Zheng</i> .....	271
TCVM Diagnosis and Treatment of Female Infertility in Large Animals.....	275
<i> Song Dalu, Ronald Koh</i> .....	275
TCVM Diagnosis and Treatment of Endometritis in Large Animals .....	279
<i> Dalu Song</i> .....	279
Veterinary Clinical Application of the Eight Extraordinary Channels.....	281
<i> Donald P. Thompson</i> .....	281
Acupuncture For Treating Chronic Inflammatory Disorders Of The Equine Lower Airway.....	287
<i> Weerapongse Tangjitjaroen</i> .....	287
<b>Pediatric and Geriatric Medicine</b> .....	<b>293</b>
TCVM For Pediatric Medicine And Kidney <i> Jing</i> Deficiency .....	295
<i> Lorena Lloret Nadal</i> .....	295
Integrated Medical Care For Geriatric Patients .....	299
<i> Huisheng Xie, Vanessa Preast</i> .....	299
TCVM Geriatric Medicine .....	307
<i> Huisheng Xie</i> .....	307
<b>Appendix: Cross Reference of Chinese Herbal Materia Medica</b> .....	<b>319</b>
<b>Index</b> .....	<b>339</b>



## Contributors

Linda Boogie, DVM  
Holistic Care Center, Deventer  
The Netherlands

Jiongran Chen, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou,  
China

Fusheng Cheng, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Ying Cui, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou,  
China

Xiaoping Diao, DVM, PhD, Professor  
College of Agriculture  
Hainan University, Haikou, China

Pengcheng Dong, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Shuwei Dong, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Bruce Ferguson, DVM, MS, Senior Lecturer  
School of Veterinary and Biomedical Sciences,  
Murdoch University, Murdoch, Australia

Zhiting Guo, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Songhua Hu, DVM, PhD, Professor  
Department of Veterinary Medicine, College of Animal  
Sciences, Zhejiang University  
Hongzhou, China

Tingjun Hu, DVM  
College of Animal Science and Technology, Guangxi  
University, Nanning, China

Min Su Kim, DVM, PhD, Assistant Professor  
College of Veterinary Medicine, ChonBuk National  
University, South Korea

Jianxi Li, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Jin-yu Li, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Xia Li, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Yimin Lin, Associate Professor  
College of Veterinary Medicine, Southwest University,  
Rongchang, China

Ge Liang, DVM, Associate Professor  
Sichuan Academy of Animal Science, Chengdu, China

Lorena LLoret, DVM  
Chi Institute of Europe, Madrid, Spain

Chaoying Luo, DVM Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Yongjiang Luo, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou,  
China

Carolina Medina, DVM, Assistant Professor  
College of Veterinary Medicine, University of Florida,  
Gainesville, FL 32610, USA

Tingxian Niu, MD  
Lanzhou PLA General Hospital, Lanzhou, China

Yin Shi, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Dalu Song, DVM, Professor  
College of Veterinary Medicine  
Nanjing Agricultural University  
Nanjing, China

Weerapongse Tangjitjaroen DVM, PhD  
The faculty of Veterinary Medicine, Chiang Mai  
University, Chiang Mai, Thailand

Donald P. Thompson, DVM  
Large Animal Service  
VT, USA

Lisa Trevisanello, DVM  
Chi Institute of Chinese Medicine  
Reddick, Florida, USA

Guibo Wang, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Meng Wang, DVM  
College of Veterinary Medicine, Gansu Agricultural  
University, Lanzhou, China

Xuezhi Wang, DVM, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou

China

Xiaojuan Wei, DVM  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Jiujia Wen, DVM, MS  
NaturalSolutions Inc, Speonk, New York, USA

Huisheng Xie, DVM, PhD, Associate Professor  
College of Veterinary Medicine, University of Florida,  
Gainesville, Florida, USA

Ruihua Xin, DVM, MS  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Zuoting Yan, PhD, Associate Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Sijiu Yu, DVM, Professor  
College of Veterinary Medicine, Gansu Agricultural  
University, Lanzhou 730070.China

Jifang Zheng, DVM, Professor  
Institute of Traditional Chinese Veterinary Medicine,  
Chinese Academy of Agricultural Science, Lanzhou  
China

Xinrong Zhu, DVM  
Gansu Holstein Breeding Center, Honggu, Gansu, China

## Preface

Traditional Chinese Veterinary Medicine (TCVM) has been practiced, developed and advanced in China for the medical treatment of animals for over four thousand years. In modern China, TCVM including acupuncture and herbal medicine is an integral part of mainstream veterinary medical care, supported by evidence-based research and clinical studies by Chinese practitioners and researchers. However, due to the lack of English-language publications and conferences, TCVM has long been inaccessible and unknown to many Western practitioners. In recognition both of this problem and the real benefits of TCVM for animals, the late Professor Chuan Yu (1924-2005), the most important figure in modern TCVM history, devoted his life to promoting TCVM internationally.

Professor Yu's vision was for TCVM to be a major contributor to veterinary medicine and become part of mainstream veterinary medical care not only in China, but worldwide. Through his exceptional skill and hard work, and with the strong support of his peers, his students and the China National Society of TCVM, the first International Conference on Veterinary Acupuncture was successfully held in Beijing, China in May, 1987. This was the first international TCVM congress ever held in China, and 211 veterinary practitioners, professors and researchers from more than 10 countries participated. This conference initiated international exchange and dialog between the Eastern and Western veterinary communities. Since then, ever increasing numbers of Chinese scholars have been invited to speak about veterinary acupuncture in Western countries, throughout Asia, Europe and North America.

Times are now rapidly changing, and wonderfully, Professor Yu's vision is coming closer to reality. In addition to acupuncture, the other TCVM modalities - Chinese herbal medicine, food therapy and *Tui-na* – are now being used in veterinary clinics worldwide. A tremendous number of scientific research studies have been conducted, which validate the efficacy and mechanisms of action of Chinese herbs. Together, the Institute of Traditional Chinese Medicine (ITCM), the Chinese Academy of Agricultural Sciences (CAAS, China), and the Chi Institute of Chinese Medicine (Chi Institute, USA) have determined that right now it is the time for China to host the first International Conference on Traditional Chinese Veterinary Medicine along with the 12<sup>th</sup> Chi Institute Annual Conference. The China Ministry of Agriculture and CAAS have approved and are supporting this conference, which has attracted 102 high-quality paper submissions. We have selected 50 of these articles for publication in the proceedings. To honor both these papers and Professor Chuan Yu, and to continue to promote the Professor's wish for TCVM to become truly international, we have compiled these papers into this book.

“Traditional Chinese Veterinary Medicine Empirical Techniques to Scientific Validation” is a great resource for learning about the many aspects of this growing field of veterinary medicine. It is a collection of the latest scientific research papers and articles on clinical TCVM application, which have been translated and consolidated for Western practitioners to easily be able to access and understand. This book is intended to illustrate the effectiveness of TCVM, as well as provide practical, evidence-based information to enhance veterinary practitioners' clinical application of acupuncture, herbal medicine, food therapy and Tui-na. To assist readers, the book is presented in five parts: Basic Scientific Research, Small Animals, Exotic Animals, Large Animals, and finally Pediatric and Geriatric Medicine.

As we publish this book, we express our deep gratitude to the conference speakers and authors of each paper, for contributing their valuable knowledge and great wisdom. We extend our appreciation to Knan Lee, Dr. Lisa Trevisanello, Dr. Kelly Chandler, Dr. Lindsey Wedemeyer, Anita Weiss, and Jessica Spell for their intensive proofreading and editing of all the papers and articles. We also thank Drs. Jifang Zheng and Chaoying Luo for coordinating the conference details. Finally, we sincerely appreciate the financial support of the Institute of Traditional Chinese Veterinary Medicine, the Chinese Academy of Agricultural Sciences, and the Chi Institute of Chinese Medicine.

Professor Zhiqiang Yang  
Huisheng Xie, DVM MS PhD