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From the Desk of the Executive Director

“IVAS - Setting the global standard in veterinary acupuncture since 1974”

I hope that all of you had some time for family and friends over the holiday season. We are already into the second month of the New Year and IVAS is as busy as ever. We held our first Introduction to Acupuncture and Traditional Chinese Medicine Course for Veterinary Support Staff. The course started online on the IVAS education learning site and concluded with the onsite portion in Portland, Oregon USA on the weekend of January 24th and 25th during the third session of the basic course. We have received positive feedback from the attendees and are looking forward to another course in Richmond, Virginia USA.

IVAS will be holding our next certification course in acupuncture this summer in Richmond, Virginia USA. This will be the first time IVAS has held a certification course in the summer. If you know someone who lives in the east coast area, and has been thinking about getting certified but doesn’t want to travel far from home, have them contact the IVAS office or visit the IVAS website for more details. If it has been awhile since you have become certified consider auditing one of the sessions for CE. You can also check out the many CE opportunities available on the IVAS website.

Mark your calendars for our next joint Congress with our Canadian affiliates, the Association of Veterinary Acupuncturists of Canada (AVAC) being held August 19-22, 2015 in Halifax Nova Scotia, Canada. The Congress will be held at the Westin Nova Scotian. We have room blocks set aside for $169-$179 a night Canadian dollars. The Program Committee is hard at work reviewing abstracts, and creating an exciting program, so be sure and check the IVAS website frequently for updates and details.

IVAS had a booth at the NAVC convention in Orlando in January and will be sponsoring at the AAVA conference in Boston this March. IVAS is also working with AAVA on the location and dates for our next joint Congress in 2016. We are in the middle of our winter weather and Colorado has enjoyed some good snow fall, and also some very nice sunny warm days. I know I am looking forward to the spring when the first green peeks through the snow and the longer daylight hours are upon us to enjoy spending more time outside.

I look forward to meeting all of you at future events, until then.

Debbie Prevratil
IVAS Introduction to Acupuncture and Traditional Chinese Medicine for Veterinary Support Staff Course

Send your vet techs, client care providers, clinic managers, receptionists and other staff (veterinarians are also welcome) to the IVAS Introduction to Acupuncture and Traditional Chinese Medicine for Veterinary Support Staff Course

This course will introduce the participant to Traditional Chinese Medicine (TCM), acupuncture, and other related modalities. Completion of this introductory course will increase the participant’s ability to assist the veterinarian in communicating the benefits and applications of acupuncture and related modalities to the client.

Upon completion of this course the participants will be able to:

• Better assist a certified veterinary acupuncturist in their clinic to increase efficiency.
• Explain how acupuncture works from both a Traditional Chinese Medical and western scientific perspective.
• Explain how acupuncture and other TCM modalities can be integrated into a regular veterinary practice as a valid treatment option and be able to promote it to clients.
• Explain TCM Food Therapy recommendations to a client based on their veterinarian’s TCM diagnosis.
• Demonstrate to a pet owner how to perform some basic Tui-Na techniques on their pets based on the veterinarian’s recommendations.

Topics Covered:

Western Acupuncture:
• Basic Neurophysiology of Pain and Acupuncture
• Incorporating Acupuncture into Your Practice
• Electroacupuncture, Moxibustion, and Laser Acupuncture
• Emergency Points

Traditional Chinese Medicine:
• TCM history taking
• Yin/Yang Theory
• Fundamental Substances
• Zang Fu Organs
• Causes of Disease (external and internal pathogenic factors)
• The Circadian Clock and the 12 Meridians
• The Eight Principles
• Five Elements
• Tui-Na (Chinese Massage) Techniques to teach owners
• Basic TCM Food Therapy
• Introduction to Chinese Herbal Medicine

Miscellaneous:
• History of Acupuncture

Course tuition is $600.00. A non-refundable $95.00 registration fee is due at the time of registration. Total course cost is $695.00.

This year’s Introduction to Acupuncture and Traditional Chinese Medicine for Veterinary Support Staff Course will be held in Richmond, VA USA on Saturday, August 8 & Sunday, August 9, 2015.

Included in the course tuition fee:

• All online learning courses
• Self-assessment activities
• Online quiz
• Discussion forums
• Course notebook with lecture materials
• All onsite classes (2 days Saturday and Sunday)
• Onsite daily breakfast and refreshment breaks
• TCM Food Therapy Chart
• Certificate of Completion of the course

Copy and paste the following link into your browser or click on the link to register:
http://events.constantcontact.com/register/event?llr=zo kh7cjab&oeidk=a07eajmnqyp81803f61
2014 Congress Proceeding Paper
Affecting TCM Organ Function by Working with the Musculoskeletal System
Linda Boggie, DVM, CVA (IVAS)

“When Yin and Yang are balanced, the five Zang function appropriately together; the tendons, ligaments, vessels, channels and collaterals flow smoothly; the muscles, bones and marrow are abundant and strong; Qi and blood follow the right path, internal and external are synergistic, vision is clear, and hearing is acute. Then the Zhen Qi becomes unshakable, and pathogens cannot invade.” – Qi Bo

“When those, when treating phlegm effectively, do not treat the phlegm, but first treat the Qi. When circulation of Qi is smooth and ordered the fluids are moving and cannot accumulate as phlegm.”

- Zhu Dan Xi

In the classics it is stated that Qi moves above, moves below; it enters and exits flowing from the interior to the exterior and from the exterior to interior. The focus of the scholars in classical writings was about the movement of Qi and Blood throughout the entire body. In modern TCVM education we often treat the exterior and the interior of the body as two separate entities: focusing on musculoskeletal disease with certain strategies and focusing on the internal patterns of disease through understanding the Eight Principle patterns, the Five Elements and their constitutional affinities, the Six Channels and sometimes the Four Levels of disease. Rarely do we study the effects that the musculoskeletal system can have on the internal Organ function. Many times when a patient presents with a chronic internal medicine disease we focus solely on the Zang-fu function. Rarely do we examine the musculoskeletal system unless a patient is obviously favoring a limb. We attribute a roached posture, slow movement or stiff movements to the disease and that the animal just isn’t feeling well. Rarely do we ever put the limbs through their range of motion and palpate the neck and pelvic regions for areas of stiffness and tension.

Recently I began thinking more about the wisdom written by classical scholars; thinking more about the connection between the exterior aspects of the body and the interior. For the last number of years I have been working with a deeper set of muscles termed the Ancestral Sinews or Zong Jin. Initially, these were found to be clinically important in patients with musculoskeletal problems such as hip dysplasia, chronic arthritis of the stifles or lumbosacral joint disease. Classically it is stated that the Ancestral Sinews can also act as holding areas for emotional or physical traumas, shocks, or pathogenic factors and keep these hidden or latent. Thus, they can indirectly serve as a nidus for chronic internal medical disease. Not until the sinews are opened and released and the pathogenic factor is released can the body fully heal. For patients with internal medicine patterns they were employed when a plateau was reached; when a patient was no longer responding to an acupuncture and herbal regimen. The effects were immediate and positive. Thinking more about the circulation between the inner and outer levels of the body I decided to try releasing the musculoskeletal level first in patients with chronic internal medical issues and see if there was a positive effect on the Zang-Fu Pattern. Patients with Zang-Fu pattern disharmonies were also examined for any areas of musculoskeletal tension and if this was found it was treated using either the Ancestral Sinews or the Dai Mai to release the stagnation. The choice was made based on the physical examination findings and clinical experience.

Most acupuncturists are familiar with the Dai Mai and its use in practice. In short the Ancestral Sinews are comprised of five distinct groups of muscles that are responsible for maintaining the structural as well as functional integrity between the three bony cavities – the cranial, thoracic and pelvic cavities. The five Ancestral Sinews include the following muscles and their tendons, ligaments and fascia:

1. The Sternoceleidomastoideus muscles which connect the head to the chest
2. The Diaphragm which connects the chest to the spine
3. The Iliopsoas muscles which connect the spine to the pelvis
4. The Rectus abdominus muscles which connect the chest to the pelvis
5. The Paravertebral and gluteal muscles which support the spine

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4. The Rectus abdominus muscles which connect the chest to the pelvis
5. The Paravertebral and gluteal muscles which support the spine
If a schematic drawing of these muscles is made you can see that they form a chain or connecting path between the body and the head. As sinew channels they are affiliated with *Wei Qi*, hence their role in interacting with a pathogenic factor. They also are involved with the proper circulation of *Wei Qi*, *Jin-ye* and to an extent, Blood, throughout the body. The term Ancestral indicates their deeper foundational aspect in the scheme of channel systems of the body. Indeed they are related and influenced by the Extraordinary Vessels, particularly the *Chong Mai* and the *Dai Mai*. Like the Extraordinary Vessels they have opening points, however, it is the same two opening points for each muscle and there are no closing points. To address a specific muscle the opening points are treated and then the respective points are treated related to each muscle. (table 1)

Table 1: Acupoints used to treat disorders of the Ancestral Sinews, *Zong Jin*.

<table>
<thead>
<tr>
<th>Muscles, Tendons and Ligaments</th>
<th>Opening Acupoints</th>
<th>Specific Acupoints*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sternocleidomastoideus</td>
<td>GB 41, GB-27</td>
<td>GB-12, TH-17, ST-12, LU5*</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>GB 41, GB-27</td>
<td>BL-17, GV- 4</td>
</tr>
<tr>
<td>Iliopsoas</td>
<td>GB 41, GB-27</td>
<td>ST-25, CV-2</td>
</tr>
<tr>
<td>Rectus Abdominus</td>
<td>GB 41, GB-27</td>
<td>Tight points on KID and ST Channels</td>
</tr>
<tr>
<td>Paravertebral and gluteal muscles</td>
<td>GB 41, GB-27</td>
<td>BL-10, BL-17, BL-23, BL-40</td>
</tr>
</tbody>
</table>

Most commonly used points in bold font

*Lung 5 is added as a point found useful in quadrupeds. It is used as a distal point for the SCM muscle complex in animals. Because of the lack of a clavicle in the quadruped the cleidomastoideus muscle has a functional relation with the cleidobrachialis muscle. The cleidobrachialis m. begins on the humeral crest (cranial and distal aspect of the humerus) and courses proximal to insert on the clavicular tendon. At its origin it is lateral to the biceps brachii.

The most common muscles involved in clinical practice have been the diaphragm and the iliopsoas mm. Clinical presentation is as with the primary sinew channels: muscle tension, pain on palpation of muscles, limited range of motion (extension of hind limbs and forelimbs), and postural changes. The most obvious postural changes are a roached/ flexed lumbar spine, steep pelvic angle and the stance with the hind limbs slightly under the abdomen. In some patients with significant involvement of the diaphragm the right side of the rib cage may be flattened compared to the left and they may have a lower neck carriage than would be expected. Some patients will also be tender to palpation of the paralumbar mm. as well as painful to palpation of GB 27.

There has been more exploration into the fascial system over the past few years and the role connective tissue plays in the transmission of the effects created when an acupuncture point is stimulated.\(^4\) The role of fascia is also being explored more in the areas of physiotherapy, osteopathy and massage therapy and the chains of fascia that connect the body have been wonderfully elucidated in the book *Anatomy Trains* by Thomas Myers.\(^5\) This work is now being repeated in the equine species with surprisingly overlapping results but also some differences, as would be expected between quadrupeds and bipeds. The fascia was always something that was incised through in order to get to the more important vessels, nerves, muscles, joints and bones. It was truly neglected as the binding between all of these structures. Even more neglected was the fascia residing in the interior of the body covering the organs and connecting these organs not only to each other but to the musculoskeletal system of the trunk involving the pleural, peritoneal, and pelvic cavity structures as well as the vertebral column, ribs and pelvic bones. What was also overlooked was the connections between the upper and lower parts of the body through these deeper fascial connections.

If we explore just the two opening points for the Ancestral Sinews we begin to see how a chain reaction can be set in motion to release a vast area of muscle tension involving not only the pelvic and abdominal musculature but also the caudal thoracic and even
the very caudal aspect of the neck musculature and fascia. In Chinese medical thinking this tension would equate to a stagnation of Qi and/ or Blood, hence pathology. Zú lin qì, Foot Overlooking Tears, is the name for GB 41. This point is located between the 4th and 5th metatarsal bones just lateral to the tendon of the m. digitorum longus. It is innervated by the dorsal common digital nerve VI which is a branch from the superficial peroneal nerve and deeper there is the dorsal metatarsal nerve IV which is a branch of the deep peroneal nerve. The sensory fibers from this point travel through the sciatic nerve to the lumbosacral trunk and eventually into the spinal cord segments of L6, 7, S1 (2). Here through interneuron pathways and the ascending and descending Lissauer’s tracts there is the possibility to influence not only the sciatic nerve and its branches but also the pudendal (S1,2,3), caudal gluteal (L7, S1), cranial gluteal (L6,7, S1), obturator (L4), 5, 6), and femoral nerves (L4,5,6) and their related innervated muscles and tissues. Looking at just two of these nerves, the cranial and caudal gluteal nerves there is the possibility to influence major muscles of the hind limb: the deep and middle gluteal mm. and the tensor fascia lata m. (cranial gluteal n.), and the superficial gluteal and piriformis mm. (caudal gluteal n.)

Wū shū, Five Pivots, is the name of GB 27. Five is the number associated with the center. Shū meaning pivot, refers to the fact that the body turns or pivots at this point. The character for shū also has meanings of being indispensable or central, reinforcing the connotations of wū. In classical writings this also referred to the influence of this point over the five Ancestral Sinews and the meaning of indispensable becomes more relevant. GB 27 is also an intersecting point with the Dai Mai. The Dai Mai also plays a pivotal role in maintaining the center as it wraps around the body and provides the support to maintain the integrity of all channels of the body. In humans GB 27 is in the depression just anterior to the anterior superior iliac spine, approximately level with Guan yuan, Ren 4. If this is transposed to the canine it places the point at the cranoventral aspect of the iliac spine. The cranial and caudal iliac spine are often grouped together as the tuber coxae in animals. Below are listed the nerves, vessels, muscles and fascia that either travel through the area of or attach to the tuber coxae.

1. In humans GB 27 is innervated by the iliohypogastric n. which is from the L1,2 cord segments. It has branches that go to the quadratus lumborum, iliopsoas, internal and external abdominal oblique mm., the transverse abdominal oblique m. and rectus abdominus.

2. In dogs there has not been complete dissection of this point to confirm this. Although the iliohypogastric n. may travel this far caudally from anatomy books it appears that the lateral cutaneous femoral nerve is also likely. This nerve travels with the deep circumflex iliac artery which is associated with GB 27 in humans. It originates from the 4th lumbar n. and has connections to the 3rd and 5th. It runs caudolateral through the substance of the psoas minor m. which it innervates as well as sending branches to hypaxial mm. in the region. It goes through the abdominal wall with the deep circumflex iliac a., passes between the lumbar and inguinal portions of the internal abdominal oblique m. and over dorsal margin of external abdominal oblique m. sending branches to both and some branches ramify in the tensor fascia lata m. It also has many terminal cutaneous branches.

3. The deep circumflex iliac artery branches from the aorta, runs laterally across the ventral surface of the sublumbar mm., enters the abdominal wall ventral to the tuber coxae and sends branches to the psoas and quadratus lumborum mm, and a deep branch goes to the transverse abdominal m.

4. The cranial part of the sartorius m. arises from the iliac crest and the cranial ventral spine as well as the lumbodorsal fascia. The cranial belly begins laterally but travels medially over the surface of the thigh to pass into the medial femoral fascia immediately above the patella forming a union with the tendons of the rectus femoris and vastus medialis. The caudal part arises on the bony ridge between the two ventral spines of the ilium. Both caudal and cranial heads are innervated by the saphenous n., a cutaneous branch of the femoral n.

5. The tensor fascia lata m. attaches proximally to the tuber coxae. It has three distinct slips which radiate distally and caudally over the quadratus femoris. Distally it continues into a deep leaf of fascia lata on a horizontal line running cranially from the trochanter major. This fascia runs over the quadratus femoris to the patella. It is
innervated by the cranial gluteal n.; one of the nerves influenced by GB 41.

6. The internal abdominal oblique m.\textsuperscript{8} originates mainly from the tuber coxae. Some fibers originate from the thoracolumbar fascia caudal to the last rib in common with the lumbar portion of the external abdominal oblique. Additional fibers originate from the fascia covering the iliopsoas m. and the inguinal ligament. There are two distinct fissures within the muscle in which abdominal blood vessels course. The middle part of the muscle gives rise to a broad aponeurosis and the lateral border of the rectus abdominus m.; often an irregular line of transition extends from the 12\textsuperscript{th} costal cartilage to the iliopsoicneal eminence. The caudal part, which primarily arises from the tuber coxae, sends fibers into the inguinal canal and the linea alba. It is innervated by the branches of the thoracic nn., the iliohypogastricus and ilioinguinalis nn.

7. The transverse abdominal m.\textsuperscript{8} is the deepest abdominal muscle. It shares the same innervation as the internal abdominal oblique m. It arises from the 8\textsuperscript{th} costal cartilage, the last lumbar transverse processes and the tuber coxae. It is an extensive muscle leaf reaching 2-4 mm in thickness in large dogs and lies in the lateral and ventral abdominal wall on the internal abdominal oblique m. and adjacent costal cartilages. The pars lumbalis arises from the lumbar processes and forms the deepest division of the thoracolumbar fascia which completely surrounds the iliocostalis m. The pars costalis arises from the medial sides of the 13\textsuperscript{th} and 12\textsuperscript{th} ribs and the 11\textsuperscript{th} to 8\textsuperscript{th} costal cartilages in such a way that its line of origin crosses the diaphragm. The muscle extends on the inner surface of the rectus abdominus and gives rise to its aponeurosis. The cranial part encroaches directly on the transverse thoracis m. and the end aponeurosis covers the outer surface of the free end of the xiphoid process. The fascia transversalis covers the inner surface of the transverse abdominal m. and runs between the iliac fascia on the ventral lateral border of the iliopsoas m. and the ventral midline.\textsuperscript{8}

8. Finally, the external abdominal oblique m.\textsuperscript{8} which covers the ventral half of the lateral thoracic wall and the lateral part of the abdominal wall. The pars costalis arises from indistinct serrations in a caudally rising line from the middle parts of the 4\textsuperscript{th} or 5\textsuperscript{th} rib to the 12\textsuperscript{th} rib and the adjacent deep trunk fascia which covers the external intercostal mm. It is partly covered by the ventral edge of the latissimus dorsi m. The pars lumbalis arises form the last rib and in common with the pars costalis of the internal abdominal oblique m. forms the principal lamina of the thoracolumbar fascia. Cranial serrations extend between the terminal serrations of the serratus ventralis and cover the terminal tendon of the longest part of the scalenus m. Caudally it fuses with the aponeurosis of the internal abdominal oblique m. to form the external leaf of the rectus abdominus and extends to the linea alba. Additional strong fibers merge with the fibers from the pectineus m. and prepubic tendon and insert on the iliopsoicneal eminence. It is also innervated by the iliohypogastric and ilioinguinal nn. Although this muscle may not directly influenced by needling GB 27 it will be indirectly influenced by the internal abdominal oblique m., the transverse abdominal m. and the shared fascial intersections as well as via the shared innervation. In summary, by stimulating the nerves associated with just these two points and affecting directly the fascial insertions of major muscles responsible for the integrity of the abdominal wall and cranilateral thigh it is possible through a chain of fascial connections, indistinct muscular origins and formed aponeuroses to influence major muscles of the gluteal region, cranial and lateral aspect of the thigh, ventral lumbar and pelvic regions, abdominal support and tension as well as influence the ventral and caudal aspect of the thorax. Through the scalenus muscle we begin to have an effect on the caudal aspect of the neck as well. In clinical practice it is often noted that GB 41 is a tender point and GB 27 can be an extremely tender point in patients with muscular tension of the hindquarters. As the needle is inserted deeply into GB 27 it is felt to pass through various layers of tissue, some of which have significant tension. As the point is treated these layers will relax and the needle can be placed deeper to gain even more effect. Often after treatment of the iliopsoas m. and the diaphragm using the Ancestral Sinew strategy it is seen that the back will become more relaxed and the angle of the pelvis is normalized resulting in a more level or horizontal lumbar topline. Upon clinical reexamination of the range of motion the extension of the hind limbs and forelimbs is immediately improved in most patients.
So how does this affect the internal organ system? The abdominal and pelvic cavities are lined internally by the transversalis fascia, which in turn is covered in most places by peritoneum. The term transversalis fascia is a term representing the various fascial divisions within the abdomen: diaphragmatic, transversalis, iliac, internal spermatic cord and pelvic fascia. In most places this fascia connects to muscles and bones and then blends with the subserous areolar tissue centrally. The subserous areolar tissue, or tela subserosa, forms the medium where the peritoneum is united with the transversalis fascia. The peritoneum is a serous membrane: a mesothelial surface composed of squamous cells and a connective tissue stroma comprised of yellow elastic and white fibrous tissue. The tela subserosa is coextensive with the peritoneal stroma and in most places is inseparable from the transversalis fascia. The peritoneum is the lining of the abdominal, pelvic and scrotal cavities as well as the coverings of and the reflections from the organs of the abdominal cavity. In embryologic development the liver, kidneys and gonads actually develop within the abdominal cavity. In embryonic development the alimentary tract is a straight tube. As differentiation occurs we get specific regions of mesentery named for the associated organ: mesogastrium- stomach, mesoduodenum – duodenum, and so on. However, as the animal ages and differentiation and development of the alimentary tract occurs there is significant rotation and torsion of the common dorsal mesentery and the continuity is changed. There is the formation of the great mesentery (or mesojejunoileum) which is a large fan hanging from the cranial part of the sublumbar region. It stays in contact cranially with the mesogastrium and caudally with the mesocolon. The root of the mesentery is approximately 1.5 cm long at its parietal attachment to the aorta and the diaphragmatic crura opposite of the second lumbar vertebra. Through this root passes the cranial mesenteric artery, intestinal lymphatics, and a large mesenteric plexus of nerves that surround the artery. The nerves that contribute to the cranial and caudal mesenteric plexus arise from T13 to the L5 spinal cord segments (T13-L4 vertebral bodies) as well as input from the dorsal vagus nerve.

The greater omentum primarily covers the intestinal coils ventrally and on the sides. It is divided into three sections: the omental bursa which is a doubled over sac that covers the intestines and travels caudally to the bladder; the splenic portion, also called the gastrosplenic ligament, and a small veil portion. Interesting anatomical features of these: the omental bursa has one opening called the eliploic foramen which is formed by the parietal coverings of the portal
The hepatorenal ligament is a delicate peritoneal remnant of the ventral mesentery and extends between diaphragm. The falciform ligament of the liver is a triangular ligament connects the left medial lobe to the dorsal right lateral lobe to the diaphragm; the left ligament. The right triangular ligament connects the is coextensive with the dorsal part of the falciform gives rise to three or more triangular ligaments and corpus. The lesser omentum cures the greater curvature of the stomach. The veil portion encases gastroepiploic vessels which travel to the greater vessels and nerves approach the spleen near the middle of its hilus and also give origin to the left mesenteries and ligaments travel nerves and blood vessels that aid in proper organ function and would be affected if there was tension (Qi stagnation) in the related fascia.

The liver is an important organ and we often see the Liver Organ system involved in many patterns. The liver is enveloped by peritoneum; embryologically it actually develops within the peritoneum which forms its serous covering. This is fused to the underlying fibrous capsule composed of primarily collagenous tissue that inserts into the liver tissue and sends interlobular trabeculae into the tissue. At the porta this fibrous tissue is thicker and continues inward with the vessels and nerves. There are some ligamentous connection that bear mentioning. There is the coronary ligament which connects the liver to the diaphragm and reflects the close embryonic relationship between the two. Its stellate border gives rise to three or more triangular ligaments and is coextensive with the dorsal part of the falciform ligament. The right triangular ligament connects the dorsal right lateral lobe to the diaphragm; the left triangular ligament connects the left medial lobe to the diaphragm. The falciform ligament of the liver is a remnant of the ventral mesentery and extends between the liver and diaphragm caudally to the umbilicus. The hepatorenal ligament is a delicate peritoneal

The point of view is on the lesser curvature of the stomach and initial portion of the duodenum and travels to the porta of the liver. Between the cardia of the stomach and the liver it attaches to the margin of the esophageal hiatus of the diaphragm and becomes continuous with the mesoduodenum on the right. There is also a hepatoduodenal ligament and a hepatogastric ligament, thus making connection between these organs. There are numerous connections between adjacent organs that originate from the lesser omentum or from the mesentery and serosal surfaces of the organs themselves. Within these mesenteries and ligaments travel nerves and blood vessels that aid in proper organ function and would be affected if there was tension (Qi stagnation) in the related fascia.

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inflammatory bowel disease, endometriosis, pelvic inflammatory disease, reproductive disorders to name a few examples. Philosophically it also provides a temporary holding place for emotions or other “pathogenic” influences that we need time to deal with.\textsuperscript{13} Again, like the Ancestral Sinews, it is an area where the body can hold a pathogenic factor, external or internal, and maintain its latency, at least for a period of time. When using the Dai Mai the strategy is often to open and allow drainage through the lower orifices of the pathogenic factor or to resolve the stagnation and allow the body to fully process the pathogenic factor and resolve the imbalance. Its trajectory is the only transverse channel in the body. In people there have been superficial horizontal (transverse) bands of connective tissue described. In Tomas Myers book Anatomy Trains he references an earlier work entitled The Endless Web written by Dr. Louis Schultz and Dr. Rosemary Feitis, DO, in which they describe seven horizontal bands of connective tissue within the body’s myofascia which act a bit like retinacula.\textsuperscript{5} Two of these bands, the inguinal band and the umbilical band, are representative of the trajectory of the Dai Mai, one as it is classically described and the other as it is currently described and used in the treatment of certain conditions.\textsuperscript{5}

The point Ming mén, GV 4, can be used in a Dai Mai strategy to bring Yang clarity to the treatment.\textsuperscript{3,13} GV 4 is between L2L3 spinous processes and can directly influence the second lumbar nerve as it exits the vertebral foramina. It is innervated by first lumbar nerve\textsuperscript{14} and through afferent sensory fibers will influence the surrounding spinal cord segments and their respective nerves including the iliohypogastric n. which innervates the quadratus lumborum and iliopsoas mm. Its position also places it squarely above the root of the great mesentery thus the possibility to affect the nerves and vascular supply to a large part of the alimentary tract. Zhāng mén, Camphorwood Gate, or LIV 13, is the next point on the trajectory. The name of the point refers to the use of camphorwood to build coffins; in other words it allows you to get rid of “dead things”, things that do not bring benefit to the body or spirit, such as toxic emotions or pathogenic factors.\textsuperscript{3,13} This point is also known to harmonize the Spleen and Liver. This point is innervated by T10-11 spinal nerves\textsuperscript{14} and again the afferent fibers will be able to influence not only these spinal cord segments but surrounding segments and their nerves which include nerve fibers that contribute to the celiac ganglia. The right celiac ganglia provides sympathetic fibers to the liver; the left provides the sympathetic input to the spleen.\textsuperscript{8} GB 26 is termed Dài Mài, Girdling Vessel, and has a strong influence to regulate the Qi movement through the Vessel. It is also an effective point to correct disharmony of the Liver leading to Qi stagnation patterns in the lower jiao.\textsuperscript{11} It is close to LIV 13 and will share the same innervation. The trajectory continues to GB 27, previously discussed, and ends at GB 28. Wéi dào, Linking Path is the name for GB 28 and is the final point affiliated with the channel in most sources. It is 0.5 cun caudal and slightly medial to GB 27.\textsuperscript{11} Transpositionally this would place the point at the caudal iliac spine in dogs, or the caudal aspect of the tuber coxae, hence the innervation and actions of the point are similar to GB 27.

The classic writings discuss the movement of Qi and Blood from the interior to the exterior, the exterior to the interior; from above to below and from below to above. When Qi and Blood move harmoniously there is no pathology. If this theory is applied in earnest, then by releasing stagnation in the exterior levels of the body there should be influence over the internal organs and the ability to normalize their function or at least aid in the process. If we apply what we know now about the neurophysiologic effects of acupuncture, both directly and through the fascial system, and apply our current understanding of anatomy, neurophysiology and developing understanding of fascial connections then we can see that this is possible; in theory. To test this I employed either the Ancestral Sinews or the Dai Mai as the first treatment strategy in patients with internal medical patterns and concurrent musculoskeletal tension. Patient clinical complaints have included inflammatory bowel disease, chronic bladder stone formation, allergic skin disease, behavioral problems (agression and insecurity), and general lethargy and weight gain. Clinically employment of these treatment strategies resulted in improvement of clinical signs within a week of the treatment. Of course these were not the only strategies employed to obtain complete resolution, but they immediately created positive changes in the Zang-Fu pattern. In many patients they needed to be repeated in subsequent treatments to fully release these muscle groups. In addition, points and herbal formulas were used in subsequent treatments
that specifically addressed the Zang-Fu pattern. At each visit the musculoskeletal system is evaluated. In most patients, once the tension is released and the Zang-Fu pattern imbalance is corrected the tension does not return. In some patients there will be additional factors that lead to constant challenge for these systems so they may need to be addressed at future visits.

References:
2015 Call for TA’s

The 2015 US Certification Course in Basic Veterinary Acupuncture will be held at the Wyndham Virginia Crossings Hotel in Glen Allen (Richmond), Virginia. This course will take place over the summer.

We are looking for a few good men and women who are ready, willing and able to teach the Equine and Canine Point Location Labs. This is a great opportunity to polish your TCM and acupuncture skills. By offering to teach and nurture fellow veterinarians that are new to our modality, you will develop friendships with other talented and caring doctors from all over the world.

Teaching Associates (TA) responsibilities include:

- Participate and teach all required Canine and Equine International Veterinary Acupuncture Society (IVAS) designated point locations and indications as listed and described in flash cards included in the course curriculum. Should any discrepancy occur as to the correct point location the TA Coordinator shall make the final determination.

- Demonstrate the application of acupuncture and TCM theory on canine and/or equine patients in the point labs, to include the acquisition of a TCM history, examination, and facilitation and guidance of student needle placement. Teaching Associates need not be “proficient” in both species, although Teaching Associates should be comfortable in locating point locations in both species.

- Participate in TA point review sessions. The TA point review sessions are scheduled during course lectures. The scheduled times, duration, and frequency of TA point review sessions varies per individual session.

- Participate in pre-session TA staff meetings for discussion of session goals and student review session agendas, usually scheduled the evening before the first day of each session.

- Participate in, help set-up and organize all student point labs and student review sessions throughout the duration of the course, to include structured small group discussions and unstructured Q & A sessions.

- Participate in the grading, reviewing, and discussion quizzes and student review guides throughout the duration of the course, to include discussions individually, via IVAS Forum or email.

- Review case logs by students as they are turned in for review.

- Be available for student questions regarding the practice of acupuncture and TCM throughout the duration of the course.

- Be able to adapt to unexpected changes in course material, structure, and schedules that may arise during the course.

- Provide at least five questions or more for the final exam database at the end of the course. Guidelines will be provided by IVAS.

Teaching Associates will receive the following compensation:

1. A total of $500.00 US per Diem ($100.00 per day) to be used towards meals and other incidentals.
2. Your lodging will be paid for when shared with another Teaching Associate.
3. Airfare will be paid for by IVAS to and from a major airport, on an economy coach flight. Or mileage at the IRS rate (currently .575 per mile) if driving. NOTE: Mileage may not exceed the basic economy coach fare.
4. IVAS course notebook.
5. USB Drive containing Canine and Equine Points Flashcards and Course Notes.
6. Attendance of lectures when not actively performing Teaching Associates duties.
7. IVAS Continuing Education credit hours.
8. Knowledge and satisfaction that comes with sharing in educating other veterinarians on acupuncture and TCM.

Course Session Dates in Richmond:
- June 10-14, 2015 – Session One
- July 8-12, 2015 – Session Two
- August 5-9, 2015 – Session Three
- September 16-20, 2015 – Session Four
Requirements to be a Teaching Associate:

- You must commit to attendance of all four sessions of the course.
- Applicant must be a current IVAS member in good standing, and certified by either IVAS or the Chi Institute. Applicants with IVAS certification will be given preferential consideration during the selection process.
- If you are being called to share your knowledge and skills, want to be more involved with IVAS and are interested in becoming a Teaching Associate, please submit a professional CV and a written statement indicating your reasons for wanting to be a Teaching Associate to office@ivas.org no later than March 1, 2015. Submissions will be reviewed and responded to by the Richmond Teaching Associate Coordinator, Dee Craig.
2015 Congress Information

Association of Veterinary Acupuncturists of Canada (AVAC) and
The International Veterinary Acupuncture Society (IVAS)
Present a Joint Congress in Veterinary Acupuncture
Halifax, Nova Scotia Canada
August 19 – 22, 2015

The Congress site:
The Westin Nova Scotian
1181 Hollis Street
Halifax, Nova Scotia B3H 2P6 Canada

The Westin Nova Scotian

Rooms are available 3 days before and after the Congress at the special room rates.

King beds - $179.00 + taxes and fees per night
Canadian dollars
Queen beds - $169.00 + taxes and fees per night
Canadian dollars
2 double beds - $169.00 + taxes and fees per night
Canadian dollars

You can make your reservation directly with the hotel by calling
+1-902-496-8585 or toll free at
+1-877-993-7846.
When making your reservation, please make sure to identify yourself as attending the International Veterinary Acupuncture Society Conference to ensure you receive the special room rate. You may also go to the link and make your reservations online at
https://www.starwoodmeeting.com/StarGroupsWeb/res?id=1412106961&key=1E8DF07C

Room blocks are available until July 18, 2015 after that the room rate will be subject to availability and the current price for rooms.

The Westin Nova Scotian is located on the harbor and rooms can be upgraded to harbor views for an additional $30.00CAD per night. Parking is available for $18.00 a day for self-parking and $22.00 per day for valet. The Westin is a pet friendly hotel and welcomes pets. Please talk to the reservationist when making your room reservation about bringing your pet with you.

Our Program Committee is hard at work creating an exciting program for both the small animal and equine tracks. Keep checking the IVAS website as the program and wet labs unfold.

About Halifax:

Halifax:

Halifax, the capital of Nova Scotia, is situated on the Atlantic coast and is an intimate city that retains the ease of a small town. From harbor front life to amazing views of scenic coastline and natural beauty, this city is large enough for a city feel and small enough to walk to many of the sights downtown.

Halifax is the second largest natural harbor in the world and was once the point of entry to Canada for refugees and immigrants. One of the first permanent European settlements in the region was on the Halifax peninsula established in the mid 1700’s. Nova Scotia in Latin means “New Scotland”.

Nova Scotia
Weather in Halifax can be rainy except for the summer months. Halifax has a pleasant climate in August ranging from the highs during the day of 77 °F/25 °C to the lows of 59 °F/15 °C at night. The mild nights allow for many outdoor activities and the not too hot summer days are perfect weather in August.

Getting there:

You will want to fly into the Halifax Stanfield International Airport.

The Halifax Stanfield International Airport is located just 50 km/31 miles from the Westin Hotel and it takes about 35 minutes to arrive at the Congress site. When you arrive there are several options for transportation. Town limo – Available 24 hours a day and the Westin has a partnership with this company and the cost is a flat fee of approximately $58.00 Canadian dollars one way. Reservations are required and can be made at +1-902-456-6345 or email them at townlimo@ns.sympatico.ca

Taxis – Available 24 hours a day right outside the airport and the cost for one way is about $63.00 Canadian Dollars, no reservations are needed.

Maritime Bus – The Maritime bus runs at set times each day and you will want to call for a schedule +1-902-429-2029 tickets run $12.50 Canadian dollars one way plus taxes. Call for schedules or visit www.maritimebus.com for more information.

A passport is required to enter Canada.
Please check: [http://www.cic.gc.ca/english/visit/visas.asp#exemptions](http://www.cic.gc.ca/english/visit/visas.asp#exemptions) to see if you require a Visa to enter Canada from your country. Some countries require a Visa in addition to a Passport to enter Canada.
The source of cellular and metabolic energy for all eukaryotes including our animal friends is the mitochondria located within the cytoplasm of our cells. This energy can be described as *Qi* in TCM/TCVM (Traditional Chinese Medicine/Traditional Chinese Veterinary Medicine). Whereas most conventional medical therapies can be toxic to mitochondria, Traditional Chinese Medical and Veterinary Medical therapies support the mitochondria. On a cellular level, this would help to explain something that we as veterinary acupuncturists see every day in our clinic. We have patients of advanced age who clinically look much younger than patients of a similar biologic age or younger than the patients who are treated exclusively with conventional medicine. This talk will explore recent research looking at the effect of acupuncture and TCVM on the mitochondrial response. We will be focusing on the effect of acupuncture on the mitochondrial response due to time constraints.

**A Brief Review of the Function of the Mitochondria.**

Mitochondria are the cellular organelles responsible for production of cellular energy via the pyruvate kinase pathway, the Kreb’s cycle and the electron transport chain. They produce energy via oxidative phosphorylation. If too little energy is produced, the cell is unable to maintain cellular homeostasis. If too much energy is produced, then electrons can leak out of this electron transport chain and create an excess of free radicals, which can then damage the mitochondria. Damage to the mitochondria can lead to cell death via apoptosis or necrosis, and promote inflammation. The production of excess free radicals is called oxidative stress. When the mitochondria are making an appropriate amount of energy, the free radicals produced during oxidative phosphorylation are cleared by the cellular antioxidants, such as glutathione. When excess free radicals are produced, or there is a deficiency in cellular antioxidants, these free radicals are then able to cause oxidative damage to the mitochondria and the cell. For those who would like greater detail in imagining the secret life of mitochondria, there are several good videos describing the function of the mitochondria here: [https://www.khanacademy.org/test-prep/mcat/biomolecules/carbohydrate-metabolism/v/introduction-to-cellular-respiration](https://www.khanacademy.org/test-prep/mcat/biomolecules/carbohydrate-metabolism/v/introduction-to-cellular-respiration)


**What is Mitochondrial Disease?**

When there is a dysfunction of energy production along the electron transport chain, free radicals are produced and oxidative stress occurs. Disruption of mitochondria occurs secondary to oxidation by these free radicals. Excess energy generated by mitochondria can cause excess free electrons, which can lead to exhaustion of cellular and mitochondrial antioxidants or direct damage to the mitochondria. Insufficient production of cell energy by the mitochondria can lead to problems maintaining normal cellular function, repair and the production of antioxidants. Oxidative stress is a fact of normal cellular life, and is required for stress adaptation, signaling of important biologic pathways and to signal the need for tissue repair. The problem comes when the cellular and mitochondrial antioxidant systems are insufficient to deal with the leaking electrons that occur during the production of energy in the electron transport chain.

Mitochondrial alterations can occur as inherited or acquired conditions. They are part of the pathogenesis of many chronic diseases including common conditions such as obesity, chronic cardiovascular disease and osteoarthritis among others. It appears that mitochondrial dysfunction precedes the chronic inflammatory changes that are hallmarks of so many debilitating and chronic diseases. The primary conventional medication classes used to treat these and other diseases can also do significant damage to mitochondrial health by actions on several differing areas of mitochondrial physiology. Significant variations in patient mitochondrial genetics can
lead to adverse effects of medications, which may stem from such damage. This list includes most classes of conventional drugs including antibiotics (1). Current research seeks pharmacologic agents with mitochondrial protective qualities such as mexiletine and cyclosporin A in skeletal and cardiac muscle (3, 4).

**Acupuncture, TCVM and the Mitochondrial Response**

All of us, who have been practicing these modalities for any length of time, start to notice an interesting clinical finding. Long-term patients receiving acupuncture and other holistic modalities appear to be living longer and better than our patients who are not treated with complementary medicine. Mitochondrial health provides us a possible direction for investigation. It is not yet clear whether these patients are healthier because they are exposed to fewer pharmaceutical mitochondrial toxins, or because TCVM modalities are supportive of the mitochondria. Early research showing the modalities making up TCVM including acupuncture, food therapy, medical massage (Tui Na) and herbal therapy, are being shown to be supportive of mitochondrial health in in vivo studies.

**Acupuncture and the mitochondrial response in a rat multi-infarct dementia model**

Acupuncture, although it initiates through the sensory nervous system, can support mitochondria in the cells of brain tissue (5, 6). In a rat model of multi-infarct dementia, acupuncture was performed using the San Jiao acupuncture method to regulate the abnormal function of Qi (7). In this method 5 acupuncture points are needled: CV 17 (Danzhong); CV 12 (Zhongwan); CV 6 (Qihai); SP 10 (Xuehai, needled bilaterally); and ST 36 (Zusanli, needled bilaterally). In a human trial using this method in 200 patients with vascular dementia there was significant improvement in clinical signs of dementia in patients who had acupuncture treatment (8) and similar success was seen in the rat model of multi-infarct dementia. In rats treated with the San Jiao point prescription, significant improvement was seen in the cognitive abilities of rats with experimental cerebral infarcts. There was no corresponding improvement in the rat patients treated with sham acupuncture points.

Reactive oxygen species (ROS), have been shown to be a major cause of tissue injury after cerebral ischemia, and were shown to be present in higher levels in experimentally impaired rats. Acupuncture treatment of this patient subgroup helped to relieve mitochondrial stress damage by these reactive oxygen species. This occurred in part, because of an increase in superoxide dismutase (SOD, the primary antioxidant in the cytoplasm) and by regulating the glutathione pool within the mitochondria itself.

When the mitochondria of the rats treated with acupuncture were compared to sham acupunctured and untreated rats, increased activity was seen in the electron transport chain of the treated patients. It is possible that this increase in production of energy by the acupunctured patients was related to the increase in cerebral blood flow seen in these rats. As neurons are particularly dependent on mitochondrial energy production, this increase in energy produced by the acupunctured patients may help to explain the cognitive improvement seen in these patients.

The last change noted in this paper was a slight increase in glucose transport seen in the acupunctured rats, which was not statistically significant. In normal individuals, the rate-limiting step in the transformation of glucose into energy is oxidative phosphorylation. However, in pathologic conditions, such as ischemia, the rate-limiting step for this process is the transport of glucose across the membrane. In this paper, acupuncture did not appear to enhance glucose transport but rather increased cerebral blood flow there by relieving mitochondrial dysfunction. This was not seen in the sham acupuncture group of rats in this study, suggesting that specific acupuncture point location was critical.

**Acupuncture inhibits mitochondrial driven apoptosis in an experimental intervertebral disk disease model in rats.**

Apoptosis, programmed cell death, is one of the important changes in the pathophysiology of intervertebral disk disease (IVD). Most of the research examining this has looked at pathogenesis once the disk has ruptured. A group at the University of Traditional Chinese Medicine in Fujian, China; have used surgical techniques to create a rat model of cervical intervertebral disk disease. Using this model they examined the cells of the annulus fibrosis, prior to rupture of the intervertebral disk, in rats receiving no treatment, electroacupuncture at GV 14
and LI 10 bilaterally or meloxicam (9). Apoptosis was quantified in these cells and compared between groups. Apoptosis in the annulus fibrosis in both the meloxicam and the electroacupuncture groups was significantly lower than in the control surgical group and was similar in number to normal rats. In rats in this model, proteins that trigger apoptosis through the mitochondrial pathway were increased in the rats that did not have treatment and decreased in the rats treated with either meloxicam or electroacupuncture. In addition, proteins that were protective of apoptosis were upregulated in the rats who had meloxicam or acupuncture.

**Acupuncture may increase hippocampal ATP concentration and improve mitochondrial function in a mouse model of Alzheimer’s disease.**

This paper (10) is written in Chinese and only the abstract is available in English. Because of this, it is difficult to evaluate the quality of the study. This study is also limited by small sample size. This study used the SAMP-8 (Senescence accelerated mouse Prone 8) mouse model of development of age-related cognitive dysfunction. Twelve SAMP-8 (affected) mice were divided into 2 groups, 6 mice were treated with electroacupuncture and 6 mice restrained in a similar manner, but not needled. An additional group of 6 SAMR1 mice, the genetic unaffected control to the SAMP-8 mice, were used as a normal group of 6 SAMP-8 mice, were used as a normal control group to the 2 affected mice groups. The electro-acupuncture group was treated at GV 20 (the human location of Baihui), GV 14 (Dazhui), BL 23 (transpositional Shenshu) and KID 3 (Taixi). These points were stimulated for 20 minutes once daily, for a course of 10 treatments and the 10 treatment protocol was repeated 3 times. According to the authors, activity of the mitochondrial respiratory chain improved and cellular ATP concentration increased suggesting improved mitochondrial function.

**The mitochondrial response to other TCVM modalities: a brief overview.**

Acupuncture is just one aspect of TCVM. Each of other TCVM modalities may have a similar supportive action on the health of the mitochondria.

**TCVM Herbal and Food Therapy:** In a cell culture model using human hepatocarcinoma cells, Korean red ginseng (*Panax ginseng*) was shown to protect stressed cells by limiting reactive oxygen species and supporting the mitochondria (11). This cytoprotective effect occurs through a specific pathway (AMPK-5′ adenosine monophosphate protein kinase) that regulates cell survival or death via the mitochondrial response to stressors. Through this same pathway and via other mechanisms, Wolf berries (*Gou Qi Zi, Lycium barbarum*) increased the production of new mitochondria and the removal of damaged mitochondria in liver (12). This was shown in an *in vivo* mouse model of hepatic steatosis.

Phytochemicals have been studied in models of platelet apoptosis *in vitro* as well (13). Looking at individual active compounds, such as resveratrol, thymoquinone, cinnamtannin B1 and crocin. Resveratrol reduces the production of ROS, and induces platelet apoptosis in a dose dependent manner. It does this without increasing the number of ROS in the blood stream. This could be particularly helpful in thromboembolic disease. Thymoquinone is isolated from black cumin and is a homologue of ubiquinone. It is also known for its antioxidant and cardioprotective effects. It has also been shown to be proapoptotic to multidrug resistant neoplastic cells. In platelets, it appears to work through the classic mitochondrial dependent pathway of apoptosis. This compound has a confounding antiapoptotic effect on nucleated cells and may trigger different biochemical pathways in different cell types. Conversely, cinnamtannin B1 (CTB), found in *Cinnamomum spp.* and several other plants has antiapoptotic activity on platelets and other normal cells, while being proapoptotic in a variety of tumor cell lines. Crocin, found in *Crocus sativus* (saffron) and fruits of *Gardenia jasminoides*, has antioxidant activity along with its many other effects. It is able to protect platelets from oxidative stress induced apoptosis and inhibits platelet aggregation.

What is being seen in single herbal treatments is also being seen in treatments with classical TCVM formulas. A group of researchers in Korea published a paper in 2000 (14) looking at a decoction of a classical formula they called *Yukmi*; and the effect of this decoction on oxidative liver damage by paraquat in a mouse model using SAMP-8 mice. This is a decoction with the same herbs at the same ratios of use as the herbal formula known in TCM/TCVM by the pinyin name *Liu Wei Di Huang*. Extracts of *Yukmi* inhibited paraquat induced damage to the hepatic mitochondria and their membranes.
 Massage and the mitochondrial response.
A study was done looking at muscle biopsies from 11 healthy young male participants following exercise. Samples were paired between tissue from a massaged limb and the opposite untreated limb. There was an increase in mRNA coding for mitochondrial electron transport components in the massage treated leg at 2 ½ hours following massage (15). This did not occur immediately after exercise. The pro-inflammatory pathway driven by NFκβ was also reduced in the massaged leg. This led to a downstream reduction in inflammatory factors in the massaged leg. These inflammatory cytokines may impede muscle repair by increasing muscle protein breakdown. There was no change in muscle glycogen levels or lactate clearance seen between the massaged and unmassaged legs. The analgesia of massage may be related to more than just the temporary release of muscle tension, but also directly through anti-inflammatory pathways in the muscle fibers.

Per the publication in reference 13. Yukmi contains Radix rehmanniae 16g; Fructus corni 8g, Rhizoma Dioscoreae 8g; Rhizoma Alismatis 6g; Poria cocos 6g; Cortex Moutan radicis 6g. These herbs are extracted with 300ml distilled water at 100°C for 1 hour to make the herbal decoction.

References
Upcoming IVAS CE Events

**US CE Events**

### AAVA 2015 Annual Meeting
March 12 – 15, 2015
Boston, Massachusetts
19.75 IVAS CE

### Are Thoresen’s NY Seminar 2015
April 16 – 19, 2015
Ellicottville, New York
27 IVAS CE

### Introductory Course in Veterinary Traditional Chinese Herbal Medicine
June 18 - 21, 2015
Middlebury, Vermont
IVAS CE Pending

### AHVMA 2015 Annual Meeting
October 15 - 21, 2015
Augusta, Georgia
IVAS CE Pending

### International IVAS CE Events

### IVAS Approved Advanced Course
XIV ItIVAS Meeting on Veterinary Acupuncture Laserpuncture in Dog and Horse
Milan, Italy
March 6 - 8, 2015
22 IVAS CE

### ABVA Spring Meeting
March 14, 2015
Birmingham, England
5 IVAS CE

### Are Thoresen’s Banff, Alberta, Canada Seminar 2015
April 11 - 14, 2015
Banff, Alberta, Canada
27 IVAS CE

### IVAS Approved Advanced Course on Veterinary Laser Acupuncture
Lewes, UK
April 24-26, 2015
22 IVAS CE

### Theoretical Background – Kongsberg Course
Dr. Are Thoresen
May 18 – 23, 2015 in Norway
31 IVAS CE

### Equine Herbal Medicine Introductory Module -
Dr. Bruce Ferguson
Germany
July 3 - 5, 2015
20.25 IVAS CE

### Canadian Oriental Medical Symposium
March 27-29, 2015
Vancouver, BC
35 IVAS CE

Check the IVAS website to find additional onsite as well on online CE events http://www.ivas.org/ivas-ce

Please contact the IVAS Office at +1-970-266-0666 or via email at office@ivas.org with any questions.
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Herbs for Sale: Over exuberance caused me to purchase more Jing Tang Herbs than I need/can use. Those that expire this year- I am giving away, expire in 2016 I will give a 20% discount and date later I am giving a 10 % discount. Buyer pays for shipping please. Please send an e-mail to me, Dr. Charlene Barnes at crbuet@comcast.net with a fax number and I will fax you the list.

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Experienced part-time veterinarian wanted to offer integrative medicine to our patients in Dartmouth, NS. A strong interest in preventative medicine and a holistic approach to veterinary medicine is required. Certification in animal chiropractic and/or veterinary acupuncture and/or Traditional Chinese Herbal Medicine is preferred. Strong surgery & dentistry skills, and certification or experience in other alternative modalities considered an asset. Client education is an important facet of the service provided by our veterinarians. Equine experience also considered an asset.
Contact: Dr. Laura Lee (owner) or Lynne Semple (mgr), 721 Main St., Dartmouth, NS, B2W 3T6; phone: 902-434-4446; fax: 902-434-9207; email: llrzacres@gmail.com

IVAS Marketplace

Experienced Head Veterinary Assistant/Technician: Chattanooga Holistic Animal Institute (CHAI) is seeking a highly motivated; experienced, Veterinary Assistant/Technician to help lead our team. As the head technician you will assist in appointments and procedures for animal examinations and treatments. It is extremely important that the ideal candidate possess the ability to learn alternative care as we are an integrative clinic that specializes in acupuncture and herbal medicine. Ideal candidate must be able to see the “big picture” and able to multitask efficiently. Salary based on experience.
Please email resume to chaiholisticvet@gmail.com or fax to 423-485-3069.

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