

1. Olfaction

Tuesday 12 May 2009 / 08.00 – 08.30
Belgian Authority (BEL) Eldin LEIGHTON (USA - IWDBA) Introduction.

Tuesday 12 May 2009 / 08.30 – 09.00
Martin ROSENBRUCH (DEU) The Canine Nose - Anatomy-Histology-Pathology.
30' Presentation

Tuesday 12 May 2009 / 09.00 – 09.40
Allen GOLDBLATT (ISR) Olfaction in the dog.
40' Presentation

2. Olfaction

Tuesday 12 May 2009 / 10.10 – 10.30
Catherine ANDRE (FRA) Canine Genetics.
20' Presentation

Tuesday 12 May 2009 / 10.30 – 11.00
Francis GALLIBERT (FRA) Genomics of olfaction in dogs.
30' Presentation

Tuesday 12 May 2009 / 11.00 – 11.40
Adee SCHOON (NLD) Investigating the effects of Early Neurological Stimulation.
40' Presentation

Early Neurological Stimulation (ENS) has been propagated to enhance the natural abilities of dogs. This kind of stimulation involves subjecting pups to mild forms of stimulation leading to mild “stress” during days 3-16, and is said to lead to a faster maturation and better problem solving abilities later in life. ENS came out of a US military program called Bio Sensor, is currently used in some other working dog programs. It has been part of the breeding program of mine detection dogs at the Global Training Center (part of Norwegian People’s Aid) for 4 years.

To investigate the effects of ENS as described by Battaglia (2001), litters born since the spring of 2008 at GTC have been divided randomly into two conditions: one receiving ENS, the other receiving the same amount of human attention but not subjected to the ENS exercises. Development parameters have been monitored by the kennel staff. The pups were subjected to testing at around 10 weeks of age by people who did not know of their prior treatment. Their further careers as working dogs are monitored. A description of ENS and the test will be presented. The effect of ENS on different developmental parameters and on the test results will be discussed. Preliminary results of the effect on the further training results of the dogs will also be presented.

Tuesday 12 May 2009 / 11.40 – 12.00

Terje Groth BERNTSEN (NOR).

Global Training Centre of Mine Detection Dogs in Bosnia: Breeding and Training program.

20’ Presentation

Dogs trained for mine detection work in conditions that differ markedly from dogs trained in other detection areas. Minefields are generally cleared under quiet and relatively stable conditions where the “environmental skills” (ability to remain performing a task without disruption by extraneous noises, sights or odours) of dogs are not often tested. On the other hand, they have to perform a very intense searching task in usually very warm conditions for several hours every day. The Global Training Centre (part of the Norwegian People's Aid) has found the necessary qualities in certain lines of Belgian Malinois shepherds and has been breeding an increasing number of these dogs over the past few years. The selection of the sires and dams form the basis of their breeding program. The puppies are reared in a kennel environment by kennel staff that stimulates them in the early weeks of their life. After weaning, they are gradually prepared for living by themselves in a kennel and follow a socialization program that includes increasing their environmental skills and initial search training. At around 10 weeks they are tested primarily for their searching skills and prey drive. Dogs that pass this test are further socialized and their simple search exercises are continued. Formal training leading to the detection of landmines starts at around 3 months of age. This training is conducted according to a defined pattern that has evolved over the past six years. From 3 to 5 months of age, the young dogs are first trained to find increasingly small pieces of a rubber toy known as a “kong”, using opportunities to play with the kong and a handler as a reward. From 5 to ca. 7 months, the dogs begin training on either of two search patterns where minute pieces of kong serve as targets amidst various distracters. Once the dogs have developed thorough search patterns, they are taught new search targets: odours related to the types of mines in the country where they will be deployed. This is done using a carefully controlled procedure and apparatus known as the

carrousel, usually after their transfer to their working environment. Next, the new target odours are combined with the search pattern in a final training phase that takes place on minefields set up specifically for training purposes near their working environments. After passing local certification with GTC staff, the dogs are passed over to local staff and certified a second time. Dogs trained in this way were used in 7 countries in 2008 where they cleared 6.685.143m² of land by locating 386 mines and 2569 UXO's (unexploded ordinances), and over 65.000 explosive fragments.

3. Olfaction

Tuesday 12 May 2009 / 13.30 – 14.00

Gerhard HOLL (DEU)

Chemistry of explosives.

30' Presentation

Tuesday 12 May 2009 / 14.00 – 14.20

Wolf A. KAFKA (DEU)

SOKKS Micro amount animal odor conditioning.

20' Presentation

A safe non hazardous and highly reproducible method to detect explosives, arsons, drugs, corps, lost persons and else material by long lasting odor sources (no pseudo).

Tuesday 12 May 2009 / 14.20 – 14.40

Joseph MIZRAHI (ISR)

Explosive training aid.

20' Presentation

The last word in explosive detection training aids!
Silicon polymer with REAL explosives pieces for dog training.
It is NOT a stimulant but the real thing with ZERO logistics!
Contains following materials: TATP, TNT, HMX, PETN, RDX, BP and Urea Nitrat.

Tuesday 12 May 2009 / 14.40 – 15.00

Leander BUCHNER (DEU)

Development of tools for explosive sniffer dog training in the Bundeswehr.

20' Presentation

The Bundeswehr School of Dog Handling has developed in co-operation with partners alternative tools for the explosive sniffer dog training. The tools is appropriate to train dogs searching for explosives not safely to handle such as TATP.
The presentation shows the original status and the different steps of the development of the tools. It explains their function and the tests done to implement the tools as the standard tools for the explosives sniffer dog training.
The presentation will describes the so called "Echtstoff-Mikromengen-Prüfkörper" (real

explosives micro portion specimen).

The partners of the development are a Bundeswehr scientific institute, an university of applied science, and an adventure. The tools were tested together with several state police forces and the Federal Criminal Police Office.

4. Olfaction - Vision

Tuesday 12 May 2009 / 15.30 – 15.50

John BRADSHAW (GBR)

Changes in rates of sniffing in air-trailing dogs.

20' Presentation

The behavioral mechanisms whereby dogs locate airborne sources of scent have received little research attention. Gundogs (N=25; 125 trials) wearing a microphone to record sniffing were videotaped locating a scented training aid hidden in a 30m x 60m grid. Scent detection was deemed to occur when the dog performed a “check-pace”, a distinct change in direction. Sniffing occurred in discrete bouts, totaling only 13% (S.E ± 3%) of time prior to check-pace (mean duration 20 seconds) and 38% (S.E ± 4%) of the time between check-pace and source location (mean duration 4 seconds) (F1, 22=23.9, p<0.001), both considerably less than the 100% reported for ground-trailing dogs. Thus, sniffing does not play the major role during air-trailing that might be expected. If active sniffing reduces the efficiency of breathing, dogs may have to trade-off gathering detailed olfactory information, through sniffing, against the need to breathe deeply in order to move quickly.

Tuesday 12 May 2009 / 15.50 – 16.20

Malinda JULIEN (USA)

Early Scent Association for Working K9s.

30' Presentation

Practical applications and research using scent imprinting / early scent association techniques for narcotics detection dogs.
In our 10th year of following a breeding program specifically bred for scent location k9s using this technique.
The success of the Early Scent Association Program through the life of the first litter through the changes in our program to the most recent litter.
80% average success rate with all breeding stock and progeny and 86% with F2 litters.
How to use the natural occurrence of dam and puppy bond to reinforce the scenting abilities of working k9s. Higher rate of success among novice K9 handlers with the ESA program pups. How the working age dropped to add more working time to the K9 Unit.

Tuesday 12 May 2009 / 16.20 – 17.00

Luc POLLET (BEL)

Human's versus dog's eye.

40' Presentation

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Tuesday 12 May 2009 / 17.00 – 17.20
Frederike RANGE (AUT) Different aspects of social learning in dogs.
20' Presentation
Friederike Range & Zsafia Viranyi Recent studies have shown that many animal species including dogs can learn from observing another individual how to solve a specific task. Exceptionally to other species, domestic dogs are selected to work with humans and are often extensively trained by humans to perform different tasks. Does this exposure to humans influence if they learn better from a human than a conspecific? One study showed that in a manipulative task dogs learn equally well from a dog demonstrator as from a human demonstrator; however, another study, using a detour task, showed that the human was only equally successful, if talking to the dog. Thus, it seems that not just the type of model is important, but also the specific task and the way of demonstration (e.g. when training dogs, we try to direct their attention to the action to be learned) effects whether and what the dogs learn – it seems sometimes to be supportive and sometimes distractive. Moreover, dogs seem not only to copy blindly another one's behavior. In a recent study, we demonstrated that dogs evaluate a conspecific demonstrator's action relative to its constraints and either copy it or use a more efficient method. Interestingly, this selective pattern of imitation occurs only if a human is directing the dog's attention towards the task during the demonstration. Thus, social learning in dogs is not as easy as it seems, but might provide a good alternative training method if designing the demonstration carefully taking various factors into account.

5. Testing

Wednesday 13 May 2009 / 08.00 – 08.30
Claire DIEDERICH (BEL) Scientific dog testing, how far from the field.
30' Presentation

Wednesday 13 May 2009 / 08.30 – 08.50
Erikson LASSE (SWE) The Swedish Police system for selecting dogs for service.
20' Presentation
During the 1940s a co-operation between the Swedish Police and the Swedish Army began, which later resulted in the joint Swedish Dog Training Centre. With the purpose of selecting dogs both for breeding and for service a temperament test was developed already in the late 1940s. It soon became evident that the test worked well. In many

aspects the police still today use the same test to evaluate if dogs offered for sale are suitable for police work. However, some changes have been done over the years, both on how to test and how to describe the dog's mentality. The latest revision was in 2008. Some 300 tests are conducted annually. 16 different traits/abilities are recorded. The suitability test should:

- Clearly state if the dog is suitable to take on for a try-out period.
- Give information on how to best train the dog.
- Give information about behaviors that must be further investigated.

Wednesday 13 May 2009 / 08.50 – 09.20

Erik WILSSON (SWE)

Summarizing test results into an index.

30' Presentation

Summarizing test results into an index

Behavioral test of dogs generates data that can be difficult to interpret from a practical point of view. The Swedish Armed Forces have adapted an index previously used at the Swedish Dog Training Centre. The template for the index was calculated combining information from test results with information from the selection process.

Out of 142 tested dogs 80 were selected for training while 62 were rejected. The index was then calculated by applying the template on all tested dogs. The mean index for dogs taken out for training was 18.7 and for rejected dogs -36.5. Only three of the rejected dogs had index over zero and three of the selected dogs had index below zero indicating that selecting dogs for training can be done solely by information from the index value. The index is also used when selecting dogs for breeding and for progeny testing.

Wednesday 13 May 2009 / 09.20 – 09.40

Anouck HAVERBEKE (BEL)

Testing fear and aggression in adult patrol dogs.

20' Presentation

6. Nutrition – Physical condition

Wednesday 13 May 2009 / 10.10 – 10.40

Sarah RIVIERE (FRA)

Nutrition, work performance, cognition.

30' Presentation

Wednesday 13 May 2009 / 10.40 – 11.10

Cynthia OTTO (USA)

Medical Surveillance of Search Dogs Deployed to the World Trade Center and

Pentagon, 2001/2006.

30' Presentation

Purpose: To monitor the health of search and rescue (SAR) dogs deployed in response to the 9/11/01 terrorist attacks.

Methods: This prospective double cohort observational study compared annual medical history, blood biochemical and hematologic results, and thoracic radiographic findings in 95 SAR dogs deployed to the World Trade Center or the Pentagon with results obtained from 55 non-deployed SAR dogs. All blood samples were analyzed by one veterinary clinical pathology laboratory and all radiographs were reviewed and scored by a single board-certified veterinary radiologist. Data analysis was performed by linear regression, nonparametric testing or Kaplan Meier survival analysis.

Results: There were no significant differences between deployed and non-deployed in survival rate or any of the medical or surgical categories investigated with the exception of a higher incidence of urological problems in deployed dogs.

Conclusions: There is no evidence to link the 9/11 response to adverse health effects in SAR dogs.

Wednesday 13 May 2009 / 11.10 – 11.40

Bess PIERCE (USA)

Physical Conditioning and injury Prevention for the Working Dog.

30' Presentation

To obtain optimal performance from working and performance dogs, they must be properly conditioned, highly trained and free of conditions that might impede performance. The best program addresses specific needs of the dog: training, health care, nutrition and exercise. These needs are largely met through stringent training and preventive health care plans. The aspect of the overall performance program that often remains underdeveloped is the conditioning of working dogs as performance athletes. Part I of the lecture describes the concepts of canine physical conditioning to include sports physiology and fitness plan development. Part II further expands on the concepts of sports medicine and management of working canines to include gait analysis, kinematics, injury prevention, and specific exercises. The goal is to provide veterinarians a broad understanding of conditioning and performance in the canine athlete, and provide the tools for building the optimal conditioning and preventive medicine program.

Wednesday 13 May 2009 / 11.40 – 12.00

Joe WAKSHLAG (USA)

Considerations for feeding working dogs in hot climates.

20' Presentation

Joseph J. Wakshlag, Robert L. Gillette and Craig T. Angle.

Ideally, in hot climates, finding potential ways to make dogs work “cooler” becomes important as overheating can be a problem. When we look at the thermogenic nature of foods it is increasingly evident that certain substrates create more heat during exercise than others, resulting in fat being the least thermogenic energy substrate available, as well as the substrate that creates the most metabolic water. Therefore, a higher fat ration may be ideal for feeding the military working dog in these hot conditions, as it has been

shown that working dogs basal body temperature will be lower when running on a high fat diet. However, this is not an immediate transition and the dog's metabolic machinery for fat metabolism must adapt to the high fat diet for this to be an effective approach; thus feeding a higher fat diet for 12-16 weeks allows this adaptation. Feeding a higher fat diet in many of these situations is ideal, not only due to its advantages in hot climates, but also due to its high digestibility, and its preferential use metabolically during low intensity/long duration exercise. Although feeding higher fat rations appears to be the panacea during hot climate work, it is possible to get too much of a good thing, which can cause health problems if the ration is not appropriately adjusted in mineral and protein content.

Feeding military working dogs in hot arid climates has provided new challenges, not only in form of food, but also metabolic functions. In principle, it would be ideal to make a high calorie, bulk reducing food that is resistant to hot climates; thereby essentially making a canine field ration (CFR). Besides the overall form of the food for bulk reduction, most importantly the product has to be nutritionally complete in the event that such a ration has to be fed long term, and should be palatable since there seems to be appetite suppression when working in these hot environments. Additionally, there should be easy transition from a normal kibble based diet to the CFR without significant gastrointestinal disturbances. Therefore, the resulting product must be highly digestible and low in soluble fiber and insoluble fiber, thereby limiting the potential carbohydrate sources that can be used. Furthermore, to prevent gastrointestinal disturbances this product cannot stray too far from the original diet in its protein and fat concentrations. This can all be achieved through appropriate ingredient selection, cooking and emulsification techniques that result in a product that is bulk reducing, highly digestible, palatable, heat resistant and appropriately balanced for the military working dog.

7. Reproduction - Genetics

Wednesday 13 May 2009 / 13.30 – 13.50

Anne TRAAS (USA)

Advanced Canine Reproductive techniques.

20' Presentation

A review of the most current methods of breeding management and a glance at cutting edge techniques on the horizon. Topics include fresh, chilled, and frozen semen; what to expect at a pre-breeding examination; pre-breeding testing; breeding timing techniques; breeding methods including artificial insemination, trans-cervical insemination, and surgical insemination; pregnancy diagnosis; DNA testing; uterine monitoring; and estrus induction. This lecture will concentrate on the newest methods while reviewing the basics of canine reproduction.

Wednesday 13 May 2009 / 13.50 – 14.10

John NEWELL (AUS)

Frozen Semen Networking – Essential Genetic Resources.

30' Presentation

Not all frozen semen is the same! With so much invested in the gene pools of the skilled

canines involved in the various working dog duties it is essential to collect and store semen for future use. This may be self limiting as it creates small local gene pools and the co-operative exchange of such genetics is essential for the group to retain these desirous characters and not risk inbreeding and all the problems associated in doing so.

FrozenPuppies Dot Com is a worldwide network providing semen freezing / implantation / transportation and storage as well as database management. We work co-operatively with Genetic Technologies for DNA testing providing security services of Sire DNA typing as well as DNA analysis at the time of surgical implant to insure total integrity of each breeding. Such co-operation backed by a 94% conception rate makes FS an affordable option for working dog instrumentalities world wide. An overview of our structure and facilities is provided as well !

As the benefits for the group by establishing or expanding such an international sperm bank supported by transport infrastructure.

Wednesday 13 May 2009 / 14.10 – 14.30

Jane RUSSENBERGER (USA)

Reldog Lite: Open Source Database for Dog Breeding Organizations.

20' Presentation

Reldog Lite (RDL) is a robust relational database software program that stores and effectively utilizes data to meet the needs of organizations breeding dogs for working purposes.

Specific data stored and managed includes dog health, temperament, breeding, whelping, pedigree relationships, training, people data and dog-people relationships. RDL also provides export and import capability to combine data from cooperative breeding groups to enable export of combined data to external software programs designed to estimate heritability and breeding values.

The program utilizes Microsoft Access to run and can be used on a single computer or networked for in-house or remote use with the aid of additional hardware and software for networking. RDL is an open source data management system through the General Public License agreement of the Free Software Foundation.

Wednesday 13 May 2009 / 14.30 – 14.50

Per ARVELIUS (SWE)

Genetic analysis of herding behavior in Swedish Border Collie dogs.

20' Presentation

From year 1989 until 2003 the Swedish Sheep Dog Society used a standardized method, HBC, to characterize herding behavior of individual border collies. The dogs' typical herding behavior was described using predefined scales. The HBC existed in two subsequent versions. In total, 2700 dogs participated.

Heritability estimates for the 17 traits of the earlier version of the HBC ranged from 0.14-0.50 (average 0.30), all significantly different from zero. Corresponding heritabilities for the later version were substantially lower. There are several possible explanations for this. For example the scales, i.e. the way the traits were recorded, might have had a less appropriate construction in the later version.

A factor analysis suggested that the traits measured can be explained by four overall traits

with heritabilities ranging from 0.30-0.55. Owing to the moderate to high heritabilities it would be possible to accomplish effective selection of breeding animals for most of the measured traits.

Wednesday 13 May 2009 / 14.50 – 15.10

Elisabeth HARE (USA)

Heritabilities of motivation-related Traits in Labrador Retriever Detector Dogs.

20' Presentation

In the US Transportation Security Administration detector dog program, a dog's motivation to learn and perform its work effectively relies on its desire to possess, play with, and retrieve toys. At 3, 6, 9, and 12 months of age, each dog is rated on four traits: the speed and desire to chase and pick up a thrown odor-saturated object (Chase Retrieve, CR), persistence in playing tug-of-war with the object (Physical Possession, PP), the length of time the dog keeps the towel (Independent Possession, IP), and the ability to focus on a handler hiding the towel (Mental Possession, MP). To evaluate the possibility of improving these traits through genetic selection, heritabilities (and standard errors) were estimated for each trait: CR, 0.16 (0.042); PP 0.36(0.045); IP 0.37(0.044); and MP 0.26 (0.047). These significant heritabilities suggest these traits could be improved by selective breeding in future generations.

8.Selection - Temperament

Wednesday 13 May 2009 / 15.40 – 16.10

John VANDELOO (AUS)

The importance of integrating natural selection within a detector dog selective breeding model.

30' Presentation

Human endeavours to selectively breed dogs for the service of mankind should recognise and harmonise for the common good the critical importance natural selection has performed in the evolution of the canine species. Mother natures governance for pivotal survival of the fittest, evolved over millenia, tends to be sidelined by man in key performance aspects such as selective reproduction processes and juvenile development practices.

Wednesday 13 May 2009 / 16.10 – 16.40

Claire DIEDERICH (BEL)

Temperament testing, from puppies to adulthood.

30' Presentation

Wednesday 13 May 2009 / 16.40 – 17.00

Elizabeth Ann WALSH (IRL)

Public perception of temperament in dogs may be influenced by woking roles.

20' Presentation

There are multi-factorial influences on people's perception of the temperament of dogs, including a dog's perceived role and abilities. Using a 5 point Lickert scale (very friendly – very aggressive), 463 students rated 3 dogs (Labrador, German shepherd and Airedale terrier) pictured alone and with 15 different categories of male and female handler, including assistance dog users, police, pet-owner and rough person. Identical photographs of each dog were used.

Overall the Labrador was rated as the friendliest. Dogs alone were rated as less friendly than when with a handler [Labrador ($F(14,462)=8.589$ $P=.000$), German shepherd ($F(14,462)=6.513$ $P=.000$), Airedale terrier ($F(14,461)=7.587$ $P=.000$)]. The type of handler also influenced the rating. Independent of handler, gender or breed of dog, dogs portrayed as assistance animals were rated as significantly more friendly than when portrayed as a police dog or owned by a rough individual. Conversely police dogs were rated as significantly less friendly.

The interesting point is that considerable significant mean differences in rating of handlers appear when adjusted for the (a) effect of the handler on the dog (b) the effect of prior rating of the dog alone on the rating of the dog with a handler and (c) the effect of a handler on rating the dog when controlling for effect of prior rating of the dog alone. Full statistical analysis is available.

Wednesday 13 May 2009 / 17.00 - 17.30

Sam GOSLING (USA)

Personality And Performance In Explosive-Detection Military Working Dogs (MWDs).

30' Presentation

We summarize findings from a project using personality to predict performance in explosive detector MWDs at Lackland AFB. Study 1 shows that interval-scaling methods yield reliable measures of personality; specifically, strong reliability coefficients were obtained across behaviors assessed (e.g., environmental behavior $\alpha = .91$; gunsureness, $\alpha = .86$; threat bite quality, $\alpha = .83$), with a mean alpha of .85 across the 13 tests. Study 2 shows that behavioral codings made by non-experts from videotaped behaviors agree with codings made by experts (median correlation between novices' and expert codings = .87). Study 3, a field-task analysis, provides exceptionally rich information about factors influencing performance in the field. (e.g., prior training experience; presence of loud noises, gunfire, crowds, extreme heat, humidity, hot sand, and loose animals). Discussion focuses on how the research can illuminate links between personality and work performance and be used to improve selection and training of MWDs.

Wednesday 13 May 2009 / 17.30

Questions and answers.

9. Veterinary - Behaviour

Wednesday 13 May 2009 / 13.30 – 13.55

Helene LEROY (BEL)

Effect of prenatal environment on learning abilities in puppies and in adult dogs.

25' Presentation

Wednesday 13 May 2009 / 13.55 – 14.10

Nancy DRESCHER (USA)

Anxiety, Fear, Disease and Lifespan in companion dogs.

15' Presentation

Stress responses in animals are related to a number of changes in hormonal modulation and immune function. A study to determine if dogs with fear and anxiety characteristics have shorter natural life-spans and a higher incidence of disease, included 721 owners of dogs who had passed away within five years. Participants completed an online survey that asked about the dog's demographics, training, behavioral characteristics, health history, age at and cause of death. Results showed that how "well-behaved" an owner felt their dog was positively correlated with lifespan, while stranger-directed fear was negatively associated with lifespan. Higher non-social fear and separation anxiety were correlated with skin disorders. None of the fear or anxiety scales were related to specific disease causes of death. This study suggests that the stress caused by living with anxiety or fearfulness may have a deleterious effect on health and life span in canines.

Wednesday 13 May 2009 / 14.10-14.30

Kent VINCE (USA)

Hip Dysplasia: Prevention and Surgical Treatment for the Military Working Dog.

20' Presentation

Canine hip dysplasia (CHD) is one of the most common orthopedic diseases in dogs. While all breeds can be affected by this developmental disease, it mainly affects medium and large breeds such as the German Shepherd Dog. Pain, reduced hind limb mobility, and decreased function are the end result of this complex disease process. Severe cases of CHD can be career-ending for the Military Working Dog (MWD). Medical and surgical management, including juvenile pubic symphysiodesis and total hip replacement, of CHD has improved significantly to keep the MWD working longer. Breeders are removing dogs with CHD from their breeding programs thus producing a healthier dog for sale. In addition, more stringent pre-purchase exams and radiographic screening tests are performed resulting in the US Department of Defense purchasing fewer dogs with developmental problems. Advances in prevention and treatment of CHD enable MWDs to have a longer, pain-free working career. I can submit a copy of my article "Canine Hip Dysplasia: Surgical Treatment for the Military Working Dog" from the July-September 2007 edition of the US Army Medical Department Journal to provide a basis of my talk.

Wednesday 13 May 2009 / 14.30 – 14.50

Bess PIERCE (USA)

Physical Rehabilitation and acupuncture as Tools of Multimodal Pain Management in Working Dogs.

20' Presentation

Human health care providers continue to utilize a variety of complementary therapies in the physical rehabilitation of patients. Programs such as the Army Regional Anesthesia & Pain Management Initiative (ARAPMI) at Walter Reed AMC integrate novel physical therapy treatments, such as hippo therapy, and acupuncture as part of rehabilitative and treatment plans. Multi-modal pain management is a pivotal concept in the successful treatment of both veterinary and human patients. By providing a balanced therapeutic approach, the provider may maximize clinical response while minimizing the detrimental side effects of excessive pharmacologic usage.

Syndromes of acute and chronic pain, orthopedic injuries and chronic degenerative disease affect the performance and quality of life of working dogs. This presentation outlines the fundamentals of physical rehabilitation and acupuncture as part of a therapeutic and pain management plan for the canine patient. Details on theory, anatomy and treatment plans for common conditions are discussed.

Wednesday 13 May 2009 / 14.50 – 15.10

John BIRRELL (ZAF)

Surgical Techniques used to prevent the Onset of Hip Dysplasia in South African Police Dogs.

20' Presentation

The South African Police Services (SAPS) Roodeplaas Veterinary Hospital serves as a referral hospital for the working dogs of the SAPS, the SAPS veterinarians also advise the SAPS Roodeplaas Training Institute on dog breeding and dog management aspects. One of the most challenging veterinary aspects of the SAPS dog breeding program is the aspect of early detection of hip dysplasia.

All puppies are radiographed at 12 weeks of age and if excessive hip joint laxity is detected, the juvenile pubic symphysiodesis procedure is performed before 16 weeks of age.

Furthermore, a large number of dogs are received from members of the public, these dogs are all screened for hip and elbow dysplasia. Dogs that are suitable candidates for training but whose hips are dysplastic but still meet the criteria for surgery will have a triple pelvic osteotomy procedure performed.

The main breed of dog used in the SAPS and is the German Shepherd Dog (GSD), Rottweiler, the Belgian Shepherd dog or Malinois and the Labrador.

10. Selection – Temperament

Wednesday 13 May 2009 / 15.40 – 16.00

John BIRRELL (ZAF)

Neoplastic conditions of Working Dogs.

20' Presentation

The South African Police Services (SAPS) Roodeplaat Veterinary Hospital serves as a referral hospital for the working dogs of the SAPS.

As such many diverse medical and surgical conditions are seen including a wide range of malignant neoplastic conditions.

The main breed of dog utilised in the SAPS and is the German Shepherd Dog (GSD) as well as the Rottweiler and the Belgian Shepherd dog or Malinois.

These breeds are all large breeds and are therefore prone to certain types of tumors that occur more commonly in the large breed dog.

The average lifespan of the working dog in the South African security services is 8 to 10 years of age of which five to seven years are spent actively working. This precludes the working dogs to be susceptible to neoplastic conditions due to their age and as mentioned certain breed predilections.

Benign and malignant neoplastic conditions are frequently seen, this presentation will cover the malignant neoplastic conditions of osteosarcoma, lymphosarcoma, haemangiosarcoma, hepato-cellular carcinoma, mast cell tumors as well as reproductive tumors ie the sertoli cell tumor and mammary gland tumors.

The prognosis, diagnostic procedures and treatment modalities that can be applied will also be discussed.

Wednesday 13 May 2009 / 16.00 – 16.20

Mark SANDFORD (NZL)

An assessment of the agreement between the New Zealand Veterinary Association Hip Dysplasia Scoring system and the PennHIP® distraction index in German Shepherds.

20' Presentation

This study examined the agreement between the NZVA hip dysplasia scoring system and PennHIP® DI in a tightly controlled New Zealand Police Dog German Shepherd population. The results showed a lack of correlation between the NZVA scores and the PennHIP® DIs and thus are of concern since ranking the dogs using these scores gives disparate results.

Wednesday 13 May 2009 / 16.20 – 16.50

Gregory CASSELEUX (FRA)

Diarrhea in Collective Kennels.

30' Presentation

Sarah Rivière wrote: *He did a lot of work concerning diarrhea issues in kennel and cattery and he could explain what are the main factors involved in this pathology and how we can try to identify what happens in the kennel, and how we can cure the dogs.*

Wednesday 13 May 2009 / 16.50 – 17.20

Sarah RIVIERE (FRA)

Nutrition and diarrhea.

30' Presentation

This presentation it will be complementary to Gregory's presentation. I will explain what

could be the link between nutrition and diarrhea, and how we can prevent some diarrhea issues by nutrition.

Wednesday 13 May 2009 / 17.30

Questions and answers.

11. Management - Programs

Wednesday 13 May 2009 / 13.30 – 13.50

John VANDELOO (AUS)

Australian Customs Breeding & Development Program.

20' Presentation

This presentation is aimed as an overview of Australian Customs progress in producing detector dogs including latest research and science analysis of our endeavors, current practices, success, failures, partnerships and vision.

We have significant information to add to last years program review presented in San Antonio.

Wednesday 13 May 2009 / 13.50 – 14.10

Erik WILSSON (SWE)

The kennel of the Swedish Armed Forces.

20' Review

Up to 1992 a majority of the service dogs in Sweden were bred, pre trained or trained at the Federal Swedish Dog Training Centre. The training and breeding facility was then transformed into a private company immediately leading to financial problems and problems recruiting dogs for service in federal duty. 2004 the Swedish Armed Forces decided to start a breeding program on German Shepherds (GS) in order to secure the supply of dogs. The breeding program is aiming on a closed breeding colony of GS with 80 breeding bitches. Since the start breeding bitches have been purchased from all around Europe. At present the kennel has 55 females while most of the males used are privately owned.

The goal of 80 bitches will be reached late 2010 with an annual production of 400 puppies and the population will then be closed in order to secure full control over the breeding process.

Wednesday 13 May 2009 / 14.10 – 14.30

Jörg SCHULENBORG (DEU)

The Bundeswehr School of Dog Handling.

20' Presentation

The presentation will describe the Bundeswehr School of Dog Handling with its tasks and organization units such as the training division, the dog clinic and the advancement division.

Wednesday 13 May 2009 / 14.30 – 14.50
Stéphan MAGNAN (FRA) Impact of housing conditions on kennelled dogs. Illustration with the kennel of the 132nd Cynophilic Battalion of French Army.
20' Presentation
<p>Since the last thirty years, a lot of studies have explored how the conditions of housing might have an impact on the behaviour and the well being of kennelled dogs.</p> <p>In this work, we firstly expose a bibliographic review of these studies. The time dogs spend on sleeping and moving is directly correlated with social isolation, and spatial restriction. The most important social impact for dogs is human contact rather than contact with conspecifics. Other methods of enrichment are worthwhile as the controversial use of toys, the cage furniture, and the influence of music or of olfactory stimulations.</p> <p>Secondly, to illustrate how housing has an impact on canine behaviour, the kennel of the 132nd Cynophilic Battalion of French Army is described. We present the building facilities, the missions of these military dogs, and the impact of these working constraints on the housing, and therefore on the canine behaviour.</p>

Wednesday 13 May 2009 / 14.50 – 15.10
Jan DEROO (BEL) The Kennel of the Belgian Armed Forces.
20' Presentation

12.Selection - Temperament

Wednesday 13 May 2009 / 15.40 – 16.10
Katja RIEDEL (DEU) Breeding/Rearing Subunit of the Bundeswehr School of Dog Handling.
30' Presentation
<p>The Breeding/Rearing Subunit of the Bundeswehr School of Dog Handling was established in 2003.</p> <p>In accordance with eligibility criteria, parent animals are selected from the pool of active MWDs which fulfill the Bundeswehr requirements for outstanding long-term performance and excellent health. Right from the very beginning specialist personnel of the Bundeswehr School of Dog Handling purposefully condition, guide and train the puppies for their Bundeswehr tasks.</p> <p>At the age of nine weeks, the puppies are handed over to their voluntary MWD handlers. Until the puppies and young dogs can begin their special training courses at the age of 12 to 18 months, the voluntary dog handlers are supported in conditioning, guiding and training the puppies and young dogs by specialist personnel of the Breeding/Rearing Subunit who hold seminars dealing with puppies and young dogs. This is to present our</p>

results.

Wednesday 13 May 2009 / 16.10 – 16.40
30' Presentation

Wednesday 13 May 2009 / 16.40 – 17.00
Mark SANDFORD (NZL) Integration of breeding, puppy development and training to produce a NZ Police Dog.
20' Presentation
This presentation will review the historical breeding, raising and training methods used within the NZ Police dog section. It will then outline the application of research, behavioral science and the integration of same to breeding, puppy development, and training to produce a NZ Police dog and achieve 90% self sufficiency.

13.Law & Responsibility

Wednesday 13 May 2009 / 13.30 – 14.00
SECURITAS - moderator Securitas definition of the problem.
30'

Wednesday 13 May 2009 / 14.00 – 14.30
X Situation in Europe.
30' Presentation

Wednesday 13 May 2009 / 14.30 – 15.10
X Situation in other countries.
40' Presentation

14.Law & Responsibility

Wednesday 13 May 2009 / 15.40 – 17.00
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Discussion

15. Search & Rescue dogs

Friday 15 May 2009 / 08.00 – 08.20

Wolgans ZÖRNER (DEU)

IRO testing programs.

20' Presentation

Friday 15 May 2009 / 08.20 – 08.50

Michaela SCHNEIDER (DEU)

Hot Climate.

30' Presentation

Friday 15 May 2009 / 08.50 – 09.10

Johannes STRYDOM (ZAF)

Scent and the Scenting Ability of the Tracker Dog.

20' Presentation

<p>Dogs have for years been known by many to have a keen sense of smell. A dog's highly developed olfactory system gives it the unique ability to be trained by tracker dog enthusiasts to trace the scent of missing persons, articles, drugs and explosives. What it is that the dog actually smells when following a track is still unknown. Several theories on this issue have been suggested. The fact remains that, without dispute, a dog can follow a human being's footprints, several hours, even days, after the person has passed through an area, and it can discriminate one human beings track from another. The assumption is that the dog receives its olfactory information from air-borne chemicals that activates receptors in its nasal cavities. With this assumption it is actually possible to train or condition a dog to register a particular smell or odor, to store the imprint of the odor in its brain, to get the dog to retrieve the imprint at a later stage for comparison and matching with other odors and to be able to discriminate between two or more odors.</p> <p>When speaking to tracker dog handlers and asked what it is that makes their dogs diligently follow the track of an unknown person, the majority admitted that they do not know, while some come out with the most weird and wonderful answers. This makes one wonder how can effective tracker dog training be given if the fundamentals are not known.</p> <p>This paper will discuss several plausible theories on some of the proposed mechanisms of</p>

scenting.

Friday 15 May 2009 / 09.10 – 09.40

Lasse ERIKSSON (SWE)

Will the Swedish Police be able to find tracking dogs in the future?

30' Presentation

The Swedish police buy all their dogs on the open market. About 400 of our police dogs are trained for tracking. Of these, 300 are German shepherds (GS). About 50% of the police dog missions in Sweden are track related. Even if most missions take place in urban environments, forest trackings for 10 kilometers distances are not uncommon. Therefore, tracking have to be self-rewarding for the dogs. However, ability to track is not much considered when selecting animals for breeding. Of the about 2900 GS born annually in Sweden, only 14% (year 2000) participates in trials that include some kind of tracking. According to our experience, 10-20% of the Swedish GS have a desire for tracking that is large enough for police service. From several hunting breeds we can learn that tracking ability can be clearly improved by selective breeding. Therefore, it is of interest to consider if tracking ability will impair with time if not selected for. If this is the case, there is a risk that!

The Swedish police will find it even more difficult finding competent GS tracking dogs in the future.

16. Search & Rescue dogs

Friday 15 May 2009 / 10.10 – 10.40

Dominique GRANDJEAN (FRA)

K9 SAR French Organization.

30' Presentation

Friday 15 May 2009 / 10.40 – 11.10

Jaime PAREJO GARCIA (ESP)

Synthesis Arcón Method.

30' Presentation

Arcón is a system to train and intervene in catastrophes with canine rescue teams.

It was created by Jaime Parejo García after twelve years of study and research.

The method was deemed finished in October 1994, and he chose the name Arcón in honor of his pet and pioneering student.

The Arcón Method's proven success in rescue operations has led it to win numerous major official awards both nationally and internationally, such as the First Prize for Research granted by the Spanish Royal Canine Society and the Sasakawa Certificate of Distinction from the United Nations.

The Arcón Method is primarily based on a set of seven innovative behavioral techniques which complement each other and have an effective impact on three fundamental,

interrelated parameters in search operations: autonomy, motivation and concentration.

Friday 15 May 2009 / 11.10 – 11.40

Lori GORDON (USA)

Canine decontamination.

30' Presentation

This power point presentation discusses emergency, gross, and technical decontamination of search canines. Issues of concern include chemical, biological, and radiologic contamination for both the canine and the people with whom they work. Particular differences for safe decontamination between canines and humans are discussed. This is not a medical treatment guide, but recognizing signs of toxin exposure is included. Mainly this presentation focuses on getting a canine safely through a decontamination corridor for further evaluation and medical treatment. A canine decontamination system design, currently in use by the Massachusetts Task Force 1 Urban Search & Rescue Team (USA) is also presented.

Friday 15 May 2009 / 11.40 – 12.00

Luis Alberto MARIN GUERRERO (COL).

Quick Learning Techniques: dogs used to detect narcotics and explosives.

As commander of the Canine Operative Unit Antidrug of the international airport of Pereira's city, traditional for being the principal zone of exit of drugs towards the exterior (principally towards USA and Spain) in commercial flights, I had to confront the summit of the drug trafficking with dogs detectors trained for labors of scanty exigency. Before this situation I started training new dogs, with the factor time in against, reason for which I analyzed the technics that were in use; coming to the conclusion from that there were processes that were delaying the training, they were complicating Instruction and were not functional in the practice.

Reason for which I analyzed the expectation as fundamental characteristic of the learning canine capacity, to anticipate the stimuli, achieving the dogs training detectors in a space from fifteen (15) to twenty (20) days and under the most extreme conditions, so, when we go on from the laboratory to the practice they are going to work as we want.

This conference will explain the use of Mine Detector Dog (MDD) in the task of Operational Mine in Colombia.

The following aspects will be developed:

INTRODUCTION.

1. History of the detecting dogs of explosive in Colombia.
2. Evolution of the mines antipersonal in Colombia.
3. Improvised explosive devices.
4. Advance in military desminado and their application in the humanitarian desminado.

TRAINING.

1. Breeding dogs detector.
2. Selection test.
3. Training of the response dogs.
4. Training of the scents of the mines.

5. Potentiation of the autonomy, motivation and concentration.
6. I work at distance.
7. Reached achievements.

17. Service Dogs

Friday 15 May 2009 / 08.00 – 08.30

Anouck HAVERBEKE (BEL)

Patrol dog training and its positive consequences. The Belgian example.

30' Presentation

The first objective of this project was to identify the existing efficiency, security and welfare problems of the Belgian DH teams and their possible various causes.

After preliminary assessments, a Control Group (CG) has been objectively assessed on the three subjects (efficiency, security and welfare):

- (1) The assessment of efficiency among DH teams has revealed that these teams do not comply with the military regulations.
- (2) Security among DH teams was tested by an aggression test. We observed that dogs reacted with fear-related aggression. This undesirable temperament trait for working dogs leads to a diminishing of the operational efficiency and the security.
- (3) Assessing MWDs welfare showed that this group of MWD has a good adaptation capacity to an additional challenge. These results indicate that the dogs might have a less diminished welfare (i.e. stereotypic behaviors) than supposed. Contrary to the original hypothesis, MWD are still able to adapt to environmental challenges.

The second objective was to set up a new Human Familiarisation and Training Program in order to improve the existing deficiencies. An Experimental Group (EG) has been submitted to this new Programme and has likewise been tested with the same assessment than CG.

- (1) We observed a significant increase of DH team's efficiency.
- (2) Security enhanced as demonstrated with an aggression test. EG dogs exhibited a significant decrease of aggressive behavior and fearfulness in comparison to CG dogs.
- (3) Dog's welfare improved as shown by the increase of EG dog's posture. Nevertheless, EG dogs remain still stressed in an unknown kennel.

Friday 15 May 2009 / 08.30 – 09.00

Steven NICELY (USA)

Record Keeping and Certification Requirements for Detector Dogs.

30' Presentation

Since April 2007 I have reviewed the records of 29 different drug dog teams. Based on the record review the dogs average 46% of the response actually producing drugs. Handlers and trainers often rely on the fact that when an dog respond in the field one cannot prove the response was incorrect if nothing is found. It can not be proven correct if nothing is found as well.

This paper would cover the importance of record keeping, analysis to reduce non-productive responses in field conditions and provide higher probability the dog's response

was in fact induce by drug odor.

Friday 15 May 2009 / 09.00 – 09.20

Danny JUST (DEU)

Certification of special dogs at the Bundeswehr dog handling school.

20' Presentation

Depending on its detection specialization the German special dog team must be certificated from 1 to 4 times a year at the German Bundeswehr dog handler school. How the system works should be shown.

Friday 15 May 2009 / 09.20 – 09.40

Wilhelm DIEDERICH (DEU)

German special dogs in missions (from SFOR to ISAF).

20' Presentation

Since the late 90's the German Bundeswehr sends his watch dogs and special dogs to missions. What are the "lessons learned" and what kinds of performances and limits are learned.

18. Service Dogs

Friday 15 May 2009 / 10.10 – 10.30

Sam GOSLING (USA)

Personality And Performance In Explosive-Detection Military Working Dogs (MWDs).

20' Presentation

We summarize findings from a project using personality to predict performance in explosive detector MWDs at Lackland AFB. Study 1 shows that interval-scaling methods yield reliable measures of personality; specifically, strong reliability coefficients were obtained across behaviors assessed (e.g., environmental behavior $\alpha = .91$; gunsureness, $\alpha = .86$; threat bite quality, $\alpha = .83$), with a mean α of $.85$ across the 13 tests. Study 2 shows that behavioral codings made by non-experts from videotaped behaviors agree with codings made by experts (median correlation between novices' and expert codings = $.87$). Study 3, a field-task analysis, provides exceptionally rich information about factors influencing performance in the field. (e.g., prior training experience; presence of loud noises, gunfire, crowds, extreme heat, humidity, hot sand, and loose animals). Discussion focuses on how the research can illuminate links between personality and work performance and be used to improve selection and training of MWDs.

Friday 15 May 2009 / 10.30 – 11.00

Nicola J. ROONEY (USA)

Response to a □tandardized psychogenic stressor as an indicator of welfare status.

30' Presentation

Urinary cortisol/creatinine (C/C) ratios have been used to measure stress and hence the

welfare of dogs. However, resting or basal levels may not be reliable indicators of chronic stress since HPA axis functioning may be altered by long term exposure to stressors.

We carried out two studies to explore the use of a psychogenic challenge (veterinary examination) to measure C/C responsiveness as an indicator of welfare. In the first, there were differences in baseline C/C between three populations of German Shepherd Dogs, but responses to the stressor varied greatly between individuals. In the second study of a single kennelled population, C/C response differed significantly between dogs showing different repetitive behavior profiles.

We conclude that basal C/C ratios are effective at distinguishing between different populations of dogs subjected to differing levels of background stress. However, within a population, response to a psychogenic stressor may be a better measure of inter-dog variation.

Friday 15 May 2009 / 11.00 - 11.30

Samantha GAINES (GBR)

Investigating relationships between housing, husbandry and welfare of MWDs.

30' Presentation

Long-term kennelling can be chronically stressful for dogs resulting in compromised welfare. Until now, the relationship between the housing, husbandry and welfare of the military working dog has received little scientific investigation.

We conducted surveys of two military working dog populations, measuring over 40 indicators of welfare and ten different factors of housing and husbandry. Statistical analysis revealed critical factors which related to welfare within each population. Some of these were associated with similar welfare indicators in both populations, suggesting that they may affect the welfare of kennelled dogs in general. For example, in both populations, high levels of exercise tended to relate to lower levels of barking. To investigate whether increased levels of exercise were beneficial, a further study was conducted. Levels and frequency of exercise were changed and measures of behaviour and physiology assessed. The findings suggested that increased levels of exercise improve welfare.

Friday 15 May 2009 / 11.30 – 12.00

Esther SCHALKE (DEU)

Comparison of stress and learning effects of three different training methods in dogs: electronic training collar, pinch collar, quitting signal.

30' Presentation

Applying aversive stimuli in dog training is highly controversial. Many studies examined stress and learning effects of electronic training collars. However, no comparison of these collars with other training methods exists to date.

This study investigated stress and learning effects of three training methods: electronic training collar, pinch collar, and quitting signal. Forty-two police dogs, all Belgian Malinois, received a different training method on each of three test days. The dogs' behavioral reactions and saliva cortisol levels were measured.

Concerning behavioral reactions, pinch collars were most stressful. Concerning saliva

cortisol levels, the quitting signal was most stressful. Electronic training collars produced the best learning effects.

Efficient methods for training under high arousal should ensure good timing, association with misbehavior only, and correct intensity as criteria for punishment in order to comply with animal welfare. Debates about training methods can only be reasonable if comprising training aids, trainers, and training conditions.

19. Assistance Dogs

Friday 15 May 2009 / 08.00 – 08.30

Deborah DUFFY (USA)

Effects of early rearing environment on behavioral development of guide dogs.

30' Presentation

We compared puppies that had been exposed to one of three different rearing environments during the first eight weeks post-whelp:

- Group 1 - whelped and reared in kennel at a guide dog breeding facility
- Group 2 - whelped in kennel at the same facility but reared in volunteers' homes from 2-5 weeks of age
- Group 3 - whelped and reared at a separate facility that provided intensive socialization from birth to 8 weeks.

Puppies' subsequent behaviors were compared using a standardized survey (C-BARQ) completed by puppy raisers when the puppies were 6 and 12 months old. Several significant differences were found amongst the groups, the largest of which were between Group 3 puppies, which also had a higher success rate in training, and the other two groups. These data indicate that early rearing environment plays a key role in canine behavioral development and warrants further study.

Friday 15 May 2009 / 08.30 – 09.00

30' Presentation

Friday 15 May 2009 / 09.00 – 09.30

X (...)

Dogs for enabled.

30' Presentation

Friday 15 May 2009 / 09.30 – 10.00

Claire GUEST (GBR) ????

Dogs for deaf- and badhearing people.

30' Presentation

20. General Information

Friday 15 May 2009 / 13.30 – 14.00

Karen OVERALL (USA)

Assessing reactivity in 3 breeds of working dogs: phenotypic determination and associated genotypes.

30' Presentation

Noise sensitivities, fears and anxieties commonly affect a dog's ability to participate in certain tasks. Obvious fear, hyper-reactivity or the inability to recover quickly from a fear-inducing stimulus usually eliminates a potential working dog from a program. There is considerable variation in the extent to which dogs react to differing characteristic noises including, but not restricted to those associated with storms, gun shots, and fireworks. Reactivity to noise segregates in family lines, although individuals within these families may have considerable variation in how they manifest their noise response. Various models of heritability have been suggested in the original literature on breeding 'stable' working dogs, and at least one of these suggests that heightened noise reactivity may be a result of heightened auditory acuity. We sought to assess whether we can identify phenotypic variations of dogs with respect to noise / sound sensitivity and analyze these behavioral phenotypes in the context of genetic variation, with the intent of considering the potential utility of various kinds of auditory detection and auditory effects on working abilities of all kinds. Breeding and selection programs have a vested interest in understanding the extent to which these conditions may be heritable and the extent to which any liability risk can be gauged. We used a case control analysis of 257 dogs with narrowly and clearly defined phenotypes (context-specific withdraw, freeze, tremble, salivate, et cetera), focusing primarily on 3 breeds of dogs often used in detection and other work: German shepherds, Australian shepherds, and border collies. These breeds were chosen because they are all herding breeds, a group from which working dogs are frequently chosen, and as such should provide interesting comparisons with respect to behaviors exhibited. Australian shepherds proved to be more genetically variable than expected, followed by border collies and German shepherds, who were slightly less variable than expected.

Case-control comparisons of genotypes produced numerous regions of interest, requiring higher-resolution fine-mapping and replication in independent samples. Such information has potential for identifying working dogs with phenotypes that will allow, enhance or interfere with work performance. Emphasis on clear phenotyping, as shown here, is essential for the success of any breeding program wishing to assess potential genetic risks.

Friday 15 May 2009 / 14.00 – 14.30

Lawrence MYERS (USA)

Reliability of operational detector dog handler teams and associated factors.

30' Presentation

This study tested reliability of dog-handler teams and evaluated selected factors that may

have an impact upon that reliability. The reliability of dog-handler teams is often more a matter of assumption, rather than of science. Randomized, double-blind tests for reliability of dog handler teams in three disciplines of interest (explosives, drug, and accelerant detection) were performed in three trials of 10 choices each. Olfactory acuity of each dog was measured by behavioral olfactometry, training frequency and type was determined, overall health was evaluated through physical exam and veterinary records, motion analysis was performed on each team during the trials, and the personality traits of the individual handlers was assessed by the Myers-Briggs Type Index. Correlations are made between the reliability measures and each factor analyzed.

Friday 15 May 2009 / 14.30 – 15.00

Henri VAN BREE (BEL)

The use of radiography in the genetic selection of dogs.

30' Presentation

13. Recent Developments

Friday 15 May 2009: 15.30 – 17.00

Friday 15 May 2009 / 15.30 – 16.00

Nina BONDARENKO (GBR)

Diabetic Alert Dog Research.

30' Presentation

At the moment there is ongoing research in various countries to try to determine whether dogs can discriminate low or high blood sugar, and if so to identify the chemical component involved. I have begun training dogs to indicate emergency changes in blood sugar levels, and to assist with a trained emergency response to help the person self-medicate or get help. Also, some dogs are able to learn to alert to urinary tract problems and other related conditions that have the potential to become medical emergencies. Based on the responses of the dogs initially trained, I am also considering the possibility that some dogs are alerting to changes in the skin PH. One aspect of the work being done is to research a range of modalities to determine what most of the dogs are responding to, as well as to establish means of delivering the substance or component to training programmes to facilitate training in a wider scale.

Research data will be updated in time for this presentation. It could be a full presentation if I go into the training and testing techniques in more detail - for people interested in the dog training aspect.

Friday 15 May 2009 / 16.00 – 16.30

Claire GUEST (GBR)

Cancer Detection Dogs.

30' Presentation

CLOSING REMARKS

Friday 15 May 2009 / 16.30 – 17.00