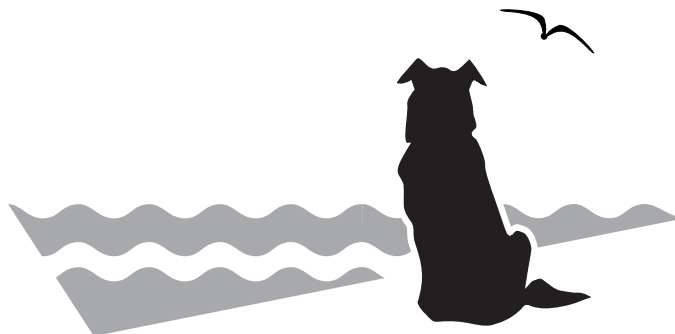


AVC NEWS

NUMBER 8 • FALL 2001



Sir James Dunn Animal Welfare Centre
ATLANTIC VETERINARY COLLEGE • UNIVERSITY OF PRINCE EDWARD ISLAND



From the Coordinator's desk

This past year has been a productive and exciting one, since the expansion of the Animal Welfare Unit to the Sir James Dunn Animal Welfare Centre (AWC). Highlights include development of the Centre's research programme, the creation of the logo, re-design of the web site, and visits from animal welfare researchers.

The bulk of the Centre's funding supports projects with the potential to provide tangible benefits for companion animals, horses, and wildlife. In this newsletter are reports for 6 projects that have been completed this year. The summer 2001 newsletter, which can be found on the web site, contained descriptions of the 13 newly funded projects. Also listed on our site are publications and presentations from all AWC projects completed to date.

On the last 2 pages of this newsletter you will find "Other News". Included in this section are tributes to Amy Matchett-Waterhouse, winner of this year's Christofor Award in Animal Welfare, and to Dr. Karen Gibson, a good friend of the Centre. There are also summaries of the animal welfare day at the 2001 World Small Animal Veterinary Congress, and of the recent visit to the Atlantic Veterinary College by animal welfare scientist Dr. Mike Appleby, and an update on federal legislation Bill C-15 B concerning cruelty to animals. Besides sponsoring Dr. Appleby's visit, over the last year the AWC co-sponsored talks here by Dr. Erica Miller, a veterinary specialist in wildlife rehabilitation, and co-hosted, along with the Canadian Veterinary Medical Association, a visit by Dr. Robert Baker, President of the Australian Veterinary Association, Chair of its Animal Welfare Advisory Committee, and Director of ANZCCART (Australian and New Zealand Council for the Care of Animals in Research and Teaching). While at the College, Dr. Baker spoke with faculty and students about animal welfare issues of common interest and how he sees animal welfare being incorporated into veterinary curricula.

A major undertaking this summer was redesign and updating of the web site, and we thank Mary-Beth MacDonald for her able assistance. Please visit our site at www.upei.ca/awc, for information such as projects funded to date, associated publications and presentations, animal welfare resources at the UPEI library, and current news and events at the Centre.

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Message from the Research Chair

The Sir James Dunn Animal Welfare Centre continues to establish its research and educational base. A highlight as I begin my second year with the Centre, is that two MSc students commenced their programmes in the fall. Dr. Janina Wojciechowska is examining quality of life in dogs. We are very pleased to be joined in this by Dr. Gary Patronek, Director of the Tufts Center for Animals and Public Policy, who has a special interest in the area, Dr. Vianne Timmons, UPEI, who is expert on assessment of quality of life in people, and Dr. Norma Guy, clinical behaviourist at the Atlantic Veterinary College and member of the AWC's Management Committee. The quality of life project raises a number of thorny issues of terminology and validity. It is an exciting and necessary challenge to examine these systematically with the goal of helping veterinarians and owners to answer the question "Is the animal suffering?"

The second student, Julie Christie BSc, is surveying the welfare of non-racing horses in PEI and will use the results to provide an educational leaflet for owners and riders. The study will obtain horse-level welfare data through a random sample of horse owners and will be a first in Canada.

During the summer and fall, I have been surveying veterinarians across Canada, including Quebec, about their use of analgesics (painkillers) in dogs and cats that are undergoing surgery. All the data are in and are being entered, analysed and written up, in collaboration with Dr. Kip Lemke and Dr. Ian Dohoo, both at the Atlantic Veterinary College. The results will be essential to guide continuing education for veterinarians in the important area of peri-operative pain management.

I will update you on all these projects and new activities next year.

COMPLETED PROJECTS - 2001

Manuscripts for the research projects described below are in various stages of preparation or review. Details of publications will be posted on our web site as they become available.

Treatment of immune failure in newborn foals

Drs. J McClure and Jeannine DeLuca

Failure of passive transfer (FPT) is a life-threatening condition in newborn foals. In contrast to human infants (who obtain antibodies from their mothers before birth), foals and other animals are born without immune protection. Foals must stand and nurse to absorb antibodies, which are concentrated in the mare's first milk (colostrum) for the first 18 to 24 hours of life. The condition when something goes wrong with this sequence of events is called "failure of passive transfer." Foals with FPT are prone to infections and often die.

Affected foals are treated by administering antibodies in a substance such as equine serum or plasma. The purpose of this project was to evaluate two treatments presently available, to determine which is more effective. The specific objectives were to:

- 1) Evaluate the concentration of antibodies (IgG) in foals with FPT before and after administration of Seramune (serum) or Polymune-Plus (plasma).
- 2) Test for the presence of IgG to tetanus toxoid and equine influenza virus.
- 3) Monitor foals for occurrence of disease and death until 12 weeks of age.

Over the course of the project, 51 foals were treated for failure of passive transfer, with 25 foals in the plasma treatment group and 21 foals in the Seramune group. Based on the concentrations of IgG determined in the foals, and the titers measured (objective 2), plasma appears to maintain a higher IgG serum concentration following transfusion than is found with Seramune. Data analysis revealed that this difference was primarily due to the total amount of IgG present in each unit (or dose) of transfusion product, with a unit of plasma containing almost twice the IgG of a unit of Seramune. This reduces the reported cost benefit of the serum product, which is less expensive than plasma.

Results

There have been four major benefits from this project to date:

1. 51 foals were diagnosed and treated for failure of passive transfer. Normally, many of these foals would not have been treated due to financial constraints.
2. Physical examination and the free diagnostic test identified five foals with a high risk for serious infection. The owners were informed so that early treatment could take place.
3. On follow up examinations, two foals were diagnosed with subclinical *Rhodococcus pneumoniae*. Treatment was begun early in the disease, and was therefore successful.
4. During this study, numerous screening tests for failure of passive transfer were evaluated, and were found to vary widely in their effectiveness. These discrepancies formed the basis for a proposal that was funded in the 2000 AWC competition.

It was determined through this research project that plasma treated foals had a greater increase in post-transfusion IgG concentra-

tions compared to foals treated with Seramune. This information will aid equine practitioners in their decision as to which product to use when faced with FPT in foals. Strengths and limitations of each product were identified. Information is being disseminated as follows:

- Abstract presentation at the Atlantic Veterinary College Fall Conference, October 2001, Charlottetown
- JL DeLuca, JT McClure, DP Lunn, and J Miller Evaluation of IgG concentration in foals with failure of passive transfer after administration of intravenous serum or plasma Presentation and conference proceedings for the 47th Annual American Association of Equine Practitioners (AAEP) Convention, November 2001, San Diego, CA
- JT McClure, JL DeLuca, DP Lunn, and J Miller Evaluation of IgG concentration and function in foals with complete or partial failure of passive transfer after administration of intravenous serum or plasma Equine Veterinary Journal (EVJ), for publication November 2001. This is a special EVJ issue focusing on equine immunology.

A model for bone healing in the horse

Drs. Laurie McDuffee and Gail Anderson

Long bone fractures in horses are among the most challenging conditions for veterinarians to treat. Some of the problems are the use of techniques designed for human bones, and poor bone healing capabilities in horses. Unfortunately in many cases there is no treatment possible and many, in fact most, horses with broken legs must be euthanized.

The overall objective of this research program was to develop an *in vitro* (tissue culture) model for equine bone healing research, through harvesting bones and bone cells from horses that were euthanized for unrelated reasons. Knowledge gained from the *in vitro* model will be incorporated into tissue engineering techniques for advancement in fracture healing. Ultimately, this research is expected to lead to methods of enhancement of bone healing for use in fracture repair, and for use in bone replacement in defects of developmental bone disease in horses as well as humans. The initial project, development of an *in vitro* equine bone healing model, is expected to lead to a large number of *in vitro* studies on equine bone healing, some of which have already begun.

The specific objectives of the initial project were:

1. To determine the quantity and quality of equine osteoblasts (young active bone cells) that can be harvested from different types of bone specimens using *in vitro* culturing methods previously determined for bone cells of other species;
2. To determine the variation in osteoblast populations of various age of donors;
3. To determine the variation in osteoblast populations of various donor sites; and
4. To determine the optimum donor age and site for an *in vitro* equine bone healing model.

Results

1. Through this study it has been determined that equine bone cells can be obtained from a variety of sites in horses ranging from 5 days to 20 years of age, using methods

similar to those used for culturing bone-producing (osteogenic) cells from other species. It was determined that equine osteogenic cells behave similarly to those of other species and have the ability to produce bone nodules *in vitro*. Some methods and time frames which yield optimum results with osteoblast culturing specific to horses have been determined.

2. Subjectively it did not appear that age was a factor; however higher numbers of horses from each age group (newborn, immature, mature, geriatric) would be required to obtain statistical results with age as a factor. Robust equine bone cell cultures were obtained from horses of all ages including older or geriatric horses. This is important because most horses donated for euthanasia and post mortem research are geriatric animals, and it is difficult to obtain bone specimens from younger animals. The ability to use aged horse bone specimens to obtain bone cells will allow this type of research to proceed much more readily.
3. There was a significant difference in osteoblast populations from various bony sites. When comparing all sites individually, tibial cortical bone had the highest mean number of bone nodules, which are a measure of potential for bony growth.
4. The optimum site for obtaining bone that would consistently and readily provide equine robust osteogenic cells for use in further *in vitro* equine bone healing studies, would include cortical bone from the tibia, third metacarpal bone, or radius. Optimum age was not determined; however it was noted that geriatric horses provide sufficient numbers of osteogenic cells and are suitable donors of equine osteogenic cells.

The research has been presented in abstract form at the following meetings.

- LA McDuffee *In vitro* heterogeneity of osteoprogenitor cell numbers in populations from various equine skeletal sites 35th Annual Meeting, Canadian Orthopedic Research Association, London, Ontario, June 2001
- LA McDuffee Heterogeneity of osteogenic potential of equine osteoblast populations *in vitro* 27th Annual Conference, Veterinary Orthopedic Society, Val d'Isère, France, March 2000
- LA McDuffee *In vitro* heterogeneity of osteoprogenitor cell numbers in populations from various equine skeletal sites 36th Annual Scientific Meeting, American College of Veterinary Surgeons, Chicago, Illinois, October 2001

The abstracts are published in the Journal of Bone and Joint Surgery, Veterinary and Comparative Orthopedics and Traumatology, and Veterinary Surgery, respectively.

Summary

To the authors' knowledge, this project is the first report of equine bone cell culturing *in vitro*. This study, which established materials and methods for equine bone cell culturing to be used as an *in vitro* model of equine bone healing, is the first step in determining new treatments that will enhance bone healing in horses with fractures. The use of substances such as growth factors and the use of reimplanted autogenous (from the horse itself) expanded bone cells can be investigated using this bone healing model. These

types of treatments and tissue engineering may be the key to improving the outlook for equine fracture patients in the future.

It is expected that this initial project will lead to a large number of *in vitro* studies on equine bone healing. The authors have several "offshoot" studies underway, which have already provided information that is immediately useful to equine surgeons or shows promise to be clinically useful in the near future. One such study has determined the best site for obtaining autogenous bone grafts with high numbers of robust bone producing cells. Another study is using the model to investigate growth factors for use in stimulating healing. A third study is investigating the periosteum (tissue that lies on the bone) as a source of bone-producing cells. These types of investigations, using the *in vitro* equine bone healing model, provide important information that will contribute to improved clinical treatments of long bone fracture healing and infectious bone disease (osteomyelitis) while minimizing the need to conduct research in horses themselves.

Anaesthetic management and complications in draft horses

Drs. Chris Riley, Dean Riedesel, Ian Dohoo, and Shanna Clinch

Emergencies and complications may occur during anaesthesia and are of particular concern in horses, where a death rate of 1.6% has been reported (compared to 0.15% in dogs and cats). Anatomic and physiologic differences between draft horses and the light horse breeds have been demonstrated. These have resulted in a perception by some of greater sensitivity to the sedative and undesirable side effects of commonly used pre-anaesthetic drugs such as xylazine. The large size of draft horses also poses some practical problems. Due to the physical limitations of trying to restrain and assist such large horses (often over 1000kg) the risk of injury to the horse or people during anaesthetic induction is great. Therefore the selection of the best protocol is essential for producing a smooth induction and recovery.

Keeping draft horses anaesthetized also poses difficult challenges. The large body weight and lung capacity of these animals limits the types of drugs that can be used, and these breeds are thought to be at greater risk of developing serious anaesthetic related complications such as tying-up (muscle damage). Despite these concerns, there have been no controlled studies examining and comparing anaesthetic drugs and protocols, or rates of complications between draft and light horses. The only report specifically on draft horses was an uncontrolled retrospective study of 17 horses published 20 years ago - 1 horse died of severe muscle disease, and 13 had an anaesthetic related problem.

The aim of the current study was to accurately evaluate the anaesthetic management and risks of anaesthetic associated complications in the draft horse. This project was conducted as a case-controlled retrospective study of clinical case records. Cases consisted of draft and light horses presented for general anaesthesia between 1991 and 1998.

Results

A total of 371 anaesthetic records were examined: 124 for draft and 247 for light horses.

Pre-anaesthetic physical and clinicopathologic variables. There were no significant differences in mean age, heart rate, respiratory rate, the occurrence of abnormal capillary refill time, or total white cell count between draft and light horse breeds. However there were

significant differences in mean body weight, rectal temperature, packed cell volume, red cell concentration (PCV) and serum total protein concentration.

Anaesthetic related drug dosages. There were significant differences between heavy and light horses in the mean dosages of some anaesthetic drugs used before and during surgery. The mean average and maximum concentrations of inspired halothane were significantly higher for draft than light horses. Heavy horses received significantly less intra-operative intravenous fluids than were administered for anaesthetic maintenance of light horses.

Anaesthetic parameters. Mean anaesthetic duration, time to extubation and recovery to the standing position were not significantly different between heavy and light horses.

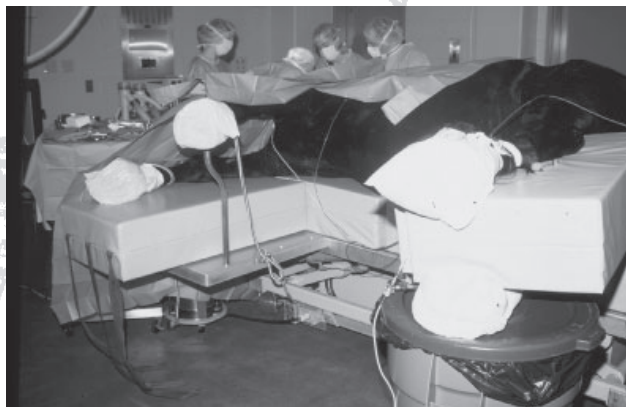
Anaesthetic related complications. Induction complications were not reported for either group of horses. The rate of occurrence of several specific intra-operative complications did not differ significantly between the light and draft breeds. However the average mean arterial blood pressure was greater in draft horses, and the mean arterial partial pressure of oxygen was significantly lower in draft than light breeds. Draft horses were at a greater relative risk of poor ventilation (hypoventilation) than light horses.

Summary

There are many findings in this study that will be directly useful for equine practitioners. In cases where body temperature is used as a means of anaesthetic monitoring, the results of this study indicate that a lower mean temperature in draft horses should be expected. The lower serum total protein concentration observed in draft horses has implications in the administration of protein-bound drugs such as barbiturates, in that there may be more profound sedative or anaesthetic effects in draft horses despite the administration of the same dose per kilogram as that used in light horses. The decrease in packed cell volume and red cell concentration, (PCV) and increased risk of hypoventilation observed in draft horses may be causative factors leading to the observed lower mean arterial partial pressure of oxygen. The inadequate fluid administration rate to draft horses in this study (mean 6.6 ml/kg/hr; 10 ml/kg/hr is recommended and was approached in the light horses) may have further influenced the mean arterial partial pressure of oxygen. The greater mean arterial blood pressure and the more frequent and higher requirement for intra-operative ketamine administration suggest problems in achieving and maintaining a surgical plane of anaesthesia. This may result in poor pain control and an increased risk of heart arrhythmias developing. It is possible that the greater requirement for inhaled anaesthetic gas, due to the high weight of these animals, may exceed the flow rates capable of being generated by standard vaporizers. Further research in this area is warranted to ensure these animals are being anaesthetized deeply enough.

This is the first controlled retrospective study of anaesthesia and anaesthetic complications in the draft horse. The results have addressed some previously held misconceptions concerning xylazine use in draft horses. However, new concerns regarding the safe maintenance of a surgical plane of anaesthesia and therefore pain perception have been identified. Investigation into vaporizers that can address this problem will reduce surgically related pain during anaesthesia. The identification of factors that affect tissue blood flow and oxygenation will make a significant contribution to preventing the clinical problems that have been observed in draft

horses at the Atlantic Veterinary College and Iowa State University (ie. post-anaesthetic muscle damage and respiratory distress), and have been alluded to in the literature. It is hoped that the discussion and application of these findings will contribute significantly to decreasing mortality and morbidity in draft horses undergoing procedures requiring general anaesthesia. The results of this study were presented at the Atlantic Veterinary College Fall Conference in October 2001 ("General Anaesthesia in Draft Horses"), and will be submitted for presentation at the meeting of the American College of Veterinary Anesthesiologists in 2002.



Black shire undergoing throat surgery.

Wildlife rehabilitation (including orphaned wildlife)

Drs. Hans Gelens, Caroline Runyon, and Pierre-Yves Daoust

The objectives of this project were:

1. To maintain and improve the level of care provided to injured and orphaned wildlife brought to the Atlantic Veterinary College Teaching Hospital. This includes nursing care, medical management, and special procedures such as diagnostic tests, X-rays, and bandage/casting material. Humane euthanasia is sometimes the best option for some of these animals.
2. To encourage continued and expanded student participation. Students at the College as well as pre-veterinary students receive 'hands on' wildlife interaction through participation in this project.

Both these objectives were met over the last year. Injured and orphaned birds were especially well represented as patients. A new registration system was started this year to individually track all wildlife admissions. Among those cared for in 2000 were 12 robins, 4 sparrows, 8 starlings, 13 crows, 18 pigeons, 4 squirrels, 8 rabbits, 1 weasel, and 4 raccoons. Although there was some mortality, especially in the orphaned small songbirds, those animals that survived were successfully released back into the wild.

The many students involved in the care and rehabilitation of these animals have become knowledgeable and comfortable in dealing with wildlife as a result of their experiences. Cooperation has been increased and streamlined with existing wildlife rehabilitation centres, to the benefit of all concerned. Contacts with local wildlife rehabilitators have intensified. Members of the public who bring in these animals express appreciation that there is somewhere to bring injured or abandoned wildlife, and know that they will receive appropriate care, even if that may be humane euthanasia.

Funding has been renewed for this project this year, to provide

continued quality veterinary care for orphaned and injured wildlife and to help educate future veterinarians in these areas. One new initiative is to create a brochure for the public to explain the care provided to these animals.



Immature robin feeding.

Lung disease in the horse - a role for *P. carinii*?

Drs. Barb Horney and Lisa Miller

Pneumocystis carinii is an organism found in the lung, which can cause pneumonia in immunosuppressed people such as those with AIDS or those undergoing chemotherapy. The same appears to be true for other animal species, including dogs, horse, and pigs. It has not been established how (or even whether) this organism is important in lung disease in horses that are not immunosuppressed.

The original objectives of this pilot study were:

1. To develop an immunologic test for *P. carinii* to be used in horses, and
2. To perform a survey of equine lung samples (cells and tissue sections) submitted through the Atlantic Veterinary College diagnostic laboratory for routine post mortem, and to stain these tissues for evidence of *P. carinii* infection to gain information on the prevalence of this organism.

Results

Histologic sections of lung from pigs, humans and horses with *Pneumocystis* pneumonia were obtained to use as positive control material. Two commercial monoclonal antibodies that are available for detection of human *Pneumocystis* have been tested with these reagents. Modifications used in the processing and staining procedures with one of the commercial antibodies have resulted in definable staining of histologic sections of equine lung infected with a large number of *Pneumocystis* organisms. This method was also found to result in positive staining of human and porcine positive control tissue sections. This method has proved successful in identifying low numbers of *Pneumocystis* organisms on sections of lung from a local (PEI) horse.

Insufficient cellular samples were submitted to the diagnostic laboratory service to evaluate this immunologic stain for this type of sample.

Tissue lung sections from 19 horses submitted for post-mortem in 1998 and 1999 were processed by two different staining methods, including our modified immunologic stain, to look for *Pneumocystis carinii*. Immunologic staining was found to be much more specific, but the presence of some background staining by

both methods interfered to some degree with identification of small numbers of organisms. This limits the sensitivity of the stains for identification of the presence of low grade *Pneumocystis* infection.

Future work to pursue:

Further refinement of the staining process to increase the sensitivity and decrease the background will be attempted. Lung sections from equine cases submitted for post mortem in years prior to 1998 will be examined and included in the data.

Investigators at the Equine Research Centre and the Ontario Veterinary College in Guelph, Ontario have been contacted and one has confirmed that he has seen similar cases of mature horses with identifiable *Pneumocystis* organisms in cellular airway samples. This is very interesting because, to the authors' knowledge, this is not a reported/published finding in studies of such samples in horses. Collaboration in this area of mutual interest and concern will continue.

Earlier diagnosis of chronic liver disease in dogs (pilot study)

Drs. Carmen Fuentealba, Karen Gibson and Bianca Esparza

Chronic liver disease is diagnosed with increasing frequency in dogs. The end-result is significant scarring of liver tissue, commonly known as cirrhosis. Usually by the time the dog is noticeably ill, over 70 per cent of the liver is damaged and treatment options are limited. However early liver damage can be reversed, so any improvement in the ability to detect changes sooner would improve the chances of successful treatment.

There is a natural substance called Hepatocyte Growth Factor (HGF) that is elevated in human patients with chronic liver disease, and may reduce the extent of associated liver damage. This study was funded as a pilot project, to carry out some preliminary investigation of techniques to detect HGF in liver tissue samples and in blood samples from dogs with known liver disease. The investigators also successfully implemented a technique to detect catastrophic cell damage (apoptosis) in liver tissue. Dr. Fuentealba intends to continue this work by using these techniques to examine liver tissue, and correlate the damage seen at the cellular level with illness in affected dogs. The ultimate goal is to use these procedures routinely to improve the ability of veterinarians to diagnose and treat canine liver disease sooner.



2001 Atlantic Veterinary College Open House—Animal Welfare Centre Display

OTHER NEWS

Dr. Mike Appleby

Dr. Mike Appleby (Vice-President for Farm Animals and Sustainable Agriculture, Humane Society of the United States) was the keynote speaker at the Atlantic Veterinary College's Fall Conference, October 12-14, 2001. Dr. Appleby is one of the world's leading animal welfare scientists. His research on the welfare of pregnant sows and of hens in cages, made an important contribution to recent changes in European Union legislation for these species.

While at AVC, Dr. Appleby gave 3 talks. He spoke in an interactive session to a full hall of veterinary students on the subject "Are Vets Good for Animal Welfare?", Dr. Appleby was pleased that the students recognise that welfare involves more than health and disease. He pointed out the conflicts of interest that veterinarians face in practice, in trying to balance the animal's interests, the owner's interests and the veterinarian's own interests.

Later that day, Dr. Appleby gave a public lecture on the subject of his book "What Should We Do About Animal Welfare?" His short answer to this question was "More", but he provided a balanced overview of the scientific, ethical and practical challenges in trying to improve the welfare of both domestic and wild animals. The lecture was well attended and generated some interesting discussion. The audience included representatives from the humane movement, from farming (including students from the Nova Scotia Agricultural College who had chartered a bus for the 4-hour trip) and from the general public.

Next day, Dr. Appleby participated in a meeting of the Canadian Farm Animal Care Trust, and then addressed Fall Conference delegates on "What Science Is Telling Us About Animal Welfare." He noted that representative studies on the welfare of farm animals are relatively easy to conduct because, within each farm, there are quite large numbers of animals kept under similar conditions. He mentioned the need for more representative research on companion animal welfare, and recognized that such research may be more difficult because of the many breeds of companion animal, with individuals and small groups kept under more or less different conditions from each other. He suggested that police dogs and guide dogs may be useful populations to study because they are kept under more consistent conditions.

While at AVC, Dr. Appleby gave several media interviews. The AWC was very pleased to sponsor his visit and we plan to hold similar events in the future. Keep an eye on the web site (www.upei.ca/awc) for news of these.

C-15 B update

As reported in our summer newsletter, amendments to the Canadian Criminal Code are before Parliament that, if passed, will provide important new protection for animals in Canada. The Bill has passed second reading and is now in hearings before the Standing Committee on Justice and Human Rights, which is expected to report back to the House of Commons by November 30. As Chair of the Animal Welfare Committee of the Canadian Veterinary Medical Association, Dr. Crook presented the CVMA brief in support of the Bill to the Standing Committee on October 31, together with the Association's President, Dr. Michael Barr.

Further information about C-15 B, including updates from Parliament, is posted on the AWC web site, in the News! Section.

Christofor Award in Animal Welfare



Christofor Award recipient Amy Matchett-Waterhouse and presenter Dr. Alice Crook

Fourth year student Amy Matchett-Waterhouse is the recipient of this year's award, presented in October at the Atlantic Veterinary College Awards ceremony. During her years at the College, Amy has been actively involved in several programmes to improve the well-being of animals kept at the College for teaching. In her second year, she organized student volunteers to provide additional walking for the beagles, and grooming of the horses and cows. Later she initiated a programme to prepare former teaching beagles for adoption, and to find suitable homes for them. Many caring student volunteers were involved in the preparation of the beagles, which included aspects such as housetraining, socialization, and accustoming the dogs to car rides. The Atlantic Veterinary College is the first Canadian veterinary college to develop such a programme.

Recognized by her classmates as a leader for her concern for animal welfare issues, Amy has also been involved in caring for feral cats in Charlottetown, and in efforts to improve conditions for animals in circuses. The AWC congratulates Amy on her receipt of the Christofor Award.

Dr. Karen Gibson leaves the Atlantic Veterinary College

After 12 years in small animal surgery at the Atlantic Veterinary College, Dr. Karen Gibson has left the College to join a referral practice in New England. The AWC is pleased to take this opportunity to celebrate her initiatives to benefit companion animals and her contributions to the Centre since it was established in 1994.

Dr. Gibson had several projects funded through the Centre, the most prominent of which is the *Medical and surgical care of homeless dogs and cats*. Through this programme, dogs and cats from regional animal shelters are brought to the Atlantic Veterinary College for neutering by students and interns, and then returned to the shelters for adoption. In addition, in cooperation with the PEI Humane Society, dogs and cats requiring veterinary care for illness or injury are treated at the College's Teaching Hospital on both an emergency and routine basis. The majority of animals are treated and placed in adoptive homes; an animal may be euthanised if injury or disease is severe. Over 1700 animals have received care through this programme over the last 7 years.



Dr. Karen Gibson

In addition to coordinating this project and the third year surgery course, and fulfilling her obligations as a busy small animal surgeon, Dr. Gibson was a willing mentor for students with ideas that will benefit animals. For several years, she oversaw the project *Teaching PEI school children about humane animal care*, through which veterinary students go into Prince Edward Island

schools to teach children about animals and animal welfare, in particular about care, compassion, and respect for dogs, cats, and other animal species. Two of her other AWC-funded projects with veterinary students are *Spay/neuter week on PEI* and *Neutering feral cats on PEI*.

Dr. Gibson's work not only directly benefited countless dogs and cats but also influenced the many veterinary students who participate in animal care or public education through these projects, and will take this experience with them into the communities where they practice. Her contributions to advancing companion animal welfare were recognized by the Canadian Veterinary Medical Association, which awarded her the 2000 CVMA Humane Award for her work.

A staunch supporter of the AWC since the beginning, Dr. Gibson served on the Management Committee for 7 years. We will miss her input and her ideas for projects, and we extend to her our warmest good wishes as she embarks on the next phase of her career.

Wildlife Medicine Course

Through the initiative of veterinary students Melanie Hicks and Katharine Jones, a 2-day short course on wildlife medicine was held at the Atlantic Veterinary College on November 17 and 18, 2001. The course was sponsored by the AWC (through the Student Project Fund), the National Wildlife Rehabilitation Association and the College's Wildlife and Exotics Club. Over 50 veterinary students, together with interested faculty and staff members, spent the weekend listening to lectures about various aspects of wildlife medicine, and in wet labs learning relevant skills and techniques for working with injured wildlife. The course was taught by 2 well-known veterinary specialists in wildlife rehabilitation, Dr. Erica Miller of Tri-State Bird Rescue and Research, and Dr. Stuart Porter, co-founder of the Wildlife Center of Virginia.

Prior to the course Dr. Porter gave a talk on *The Value of Wildlife Rehabilitation*, which was attended by faculty, veterinary and biology students, personnel from the PEI Department of Fish and Wildlife and from the PEI Humane Society, and local wildlife rehabilitators.

Animal Welfare at the WSAVA

A day-long animal welfare symposium was part of the 2001 Annual Congress of the World Small Animal Veterinary Association, which took place this summer in Vancouver and was attended by over 3000 veterinarians from around the world. The symposium addressed the issues of cosmetic surgery and animal abuse.

Speakers talked about worldwide differences in attitudes towards ear cropping and tail docking. In North America tail docking is routine in many breeds, and ear cropping is still widely available, except in Newfoundland and Labrador where it is illegal. In Europe, the United Kingdom, Australia and New Zealand, ear cropping is illegal and, in several countries, tail docking as well. Attitudes towards declawing of cats also vary widely, with the practice being much more common in North America than anywhere else. Dr. Gary Patronek of the United States summarized studies regarding the effects of declawing, and Dr. Gary Landsberg of Canada talked about alternatives to the procedure. Other speakers included Dr. Alice Crook (Canada), Dr. Ray Butcher (United Kingdom), Dr. Roger Clarke (Australia), and Dr. Petra Mertens (Germany and now United States). This session provided an excellent opportunity to gain international perspectives on these topics, from veterinarians in the audience as well as from the speakers.

The afternoon session looked at animal abuse and the role that veterinarians can and should play in prevention and intervention. Drs. Crook, Butcher and Clarke summarized relevant legislation in different parts of the world. Dr. Gary Patronek spoke on *Recognizing animal abuse*, and Dr. Randall Lockwood of the Humane Society of the US, delivered a state-of-the-art lecture on *Animal abuse and human violence*. The session was well-attended, and generated considerable discussion on the role and responsibility of individual veterinarians in recognizing and reporting animal abuse.

MANDATE

The Sir James Dunn Animal Welfare Centre (AWC) exists to promote animal health and well-being in the broadest sense.

Objectives:

- 1) The AWC promotes research projects and service activities where there is a clear potential for tangible benefits to animals.
- 2) The AWC serves as a resource centre to compile, generate, and disseminate information relevant to the well-being of animals.
- 3) The AWC strives to raise the awareness of the public and the veterinary profession on broad questions of animal welfare and animal use, and to provide accurate, scientifically based information on these questions.

The Animal Welfare Centre gratefully acknowledges the continued support of the Sir James Dunn Foundation and the Friends of the Christofor Foundation.