Department and Cleveland Metroparks Zoo Sign Affiliation Agreement

The Department of Veterinary Preventive Medicine has recently entered into a partnership with Cleveland Metroparks Zoo, forming the Epi-Zoo Program to focus on epidemiologic studies of captive and free-living wildlife populations. The mission of the program is to assess the health, diseases and environment of captive and free-ranging wildlife populations, to improve and monitor the health and well-being of these populations, and to provide research, education and outreach opportunities in wildlife health. The Department–Zoo partnership has hired Dr. Pam Dennis as assistant clinical professor and veterinary epidemiologist in a three-year term position.

Dr. Dennis recently completed her PhD studies at The Ohio State University in the Department of Veterinary Preventive Medicine. The focus of her epidemiologic research was on the survivability of captive black rhinoceroses in the United States. This research described the current health and reproductive status of the captive black rhinoceros population in the United States, elucidated temporal trends in disease occurrence in the population, identified previously unrecognized disease patterns, and used a systematic approach to examine risk factors associated with decreased survival and the occurrence of a skewed natal sex ratio.

Dr. Dennis received her DVM from North Carolina State University College of Veterinary Medicine. She is a Diplomate of the American Association of Zoo Veterinarians. She completed an internship in large animal medicine and surgery at NC State University, then proceeded to a clinical residency in zoo and wildlife medicine at the University of Florida College of Veterinary Medicine. As part of the residency, she was responsible for case management of the zoological medicine service, including both privately owned exotic animals and injured native wildlife. Her responsibilities also included wildlife field service, consisting of monthly visits to five Florida zoological facilities. She instructed junior
and senior veterinary students rotating through the wildlife service. The third year of the residency was spent primarily at White Oak Conservation Center, working with a large collection of endangered hoofstock and carnivores, as well as endangered birds and reptiles. As part of her residency she was involved in several field projects, including a health assessment of Florida panthers, an anesthesia study on free-ranging Baird’s tapirs in Costa Rica, and a health evaluation of wild Guanay cormorants in Peru.

As part of the research focus of the Epi-Zoo Program, Dr. Dennis is investigating problems of reproductive acyclicity in captive African elephants, continuing her research on the etiology of disease syndromes in captive black rhinoceroses, and examining the suboptimal reproduction in first generation captive-born white rhinoceroses. Other research areas of interest include evaluating whether Johne’s Disease (Mycobacterium paratuberculosis infections) plays a significant role in the health of exotic ruminant species in zoos, and the influence of antimicrobial resistance on the health of zoo species. The Epi-Zoo Program seeks to encourage and facilitate collaborative research efforts among the many departments of The Ohio State University, Cleveland Metroparks Zoo and other zoological institutions to improve our understanding of the health and diseases of wildlife. The Program also encourages students, both graduate and veterinary students, to become actively involved in research in zoological medicine. Anyone interested in the Program should contact Dr. Pam Dennis (dennis.129@osu.edu).

Dr. Gordon to Retire

Dr. John “Jack” Gordon (gordon.15@osu.edu) will officially retire from the Department of Veterinary Preventive Medicine on June 30th. Dr. Gordon has been a faculty member in the Department since 1980. He has been associated with The Ohio State University for over 40 years having received his DVM degree in 1968. Prior to joining our faculty Dr. Gordon was an officer in the Army Veterinary Corps. While serving in the Corps, he received his Master of Public Health degree from the University of Minnesota in 1977 and became a Diplomate of the American College of Veterinary Preventive Medicine in 1978.

Dr. Gordon has served as the Chair of the Department’s Graduate Studies Committee since 1995. He also served as the team leader for VM 700.08, Applied Veterinary Medicine, a core clinical rotation for fourth year veterinary students. His teaching duties have included instruction in food hygiene, public health and epidemiology to veterinary students, and various aspects of public health to graduate students. His research interests involved zoonotic and infectious diseases, especially equine leptospirosis, canine parvovirus, Rocky Mountain Spotted Fever, and other rickettsial disease, canine giardia, Potomac horse fever, wildlife
Specialty Training in Laboratory Animal Medicine

The Ohio State University and Battelle Memorial Institute, Columbus Ohio, are cooperating in a new American College of Laboratory Animal Medicine (ACLAM) training program. ACLAM formally recognized this program in February, 2005. The program will allow trainees to sit for the ACLAM board examination immediately upon completion of the program. It will provide clinical opportunities for 2 residents per year (maximum of 6 at any one time). Dr. Valerie Bergdall, Associate Professor in the Department and Associate Director for University Laboratory Animal Resources, will serve as the Training Program Director. Dr. Bergdall joined the Department in 1994. Her research interests center on the physiological basis of behavior and psychological well-being of animals.

Trainees will spend 24 months in the program. The research component will consist of 12 months with the expectation that a primary author publication will result from this experience. Trainees will select a research mentor/laboratory that participates in the NIH T35 mouse pathobiology training grant. Investigators that are part of this T35 grant have an excellent track record of external funding and subsequent publications. The clinical component will consist of 12 months during which the trainees will rotate through an academic setting at OSU and an industrial setting at Battelle Memorial Institute. The majority of the clinical rotation (minimum of 9 months) will occur at OSU. Trainees will be expected to participate in clinical rounds at the OSU vivaria, consult with investigators, train personnel on animal handling techniques, learn husbandry procedures and management strategies, and assist in IACUC protocol review and meetings. In addition, they will rotate through the ULAR Quality Assurance Laboratory supporting the sentinel program and rodent necropsy. The Battelle Memorial Institute clinical rotation will provide trainees with GLP and toxicology experience as well as routine clinical case management. Trainees will be encouraged to present an abstract at the National AALAS meeting during the last part of the training program. Trainees will be evaluated by the research and clinical mentors through a formal written process every 6 months. The basis for the evaluation will be successful completion of the training program.
OSU and Batelle Memorial Institute have many cooperative research programs. The continuity of the clinical experience will therefore be a result of these current interactions and established communication lines. Battelle Memorial Institute will provide an additional type of laboratory animal experience in that it is a contract facility doing primarily GLP studies. The chief veterinarian at Battelle Memorial Institute, Tracy Peace, completed her laboratory animal medicine training at OSU receiving her MS from the department in 1994. The proposed clinical training arrangement was in place previously and has worked very well. The range of species is extremely diverse including mice (many GEMs), rats, farm animals, primates, dogs, cats, and various exotics. The research programs are equally diverse and cover such areas as cardiovascular disease, cancer, immunology, genetics, virology, and neuropsychology. The animal facilities at OSU encompass 17 separate buildings with 300,000 net square feet of animal space. All locations are fully accredited by AAALAC, International. For further information contact Dr. Bergdall at: bergdall-costell.1@osu.edu

Egypt AERI Linkage Project

Kent & Connie Hoblet at the Pyramids of Giza, near Cairo, Egypt

Some of the animals used for teaching techniques at the College of Veterinary Medicine, Assiut University, Assiut, Egypt

Typical scene near small village in Upper Egypt

From the time of the pharaohs the Nile Valley south of Cairo has been known as Upper Egypt while the Delta region north of Cairo has been called Lower Egypt. Relative to Lower Egypt, Upper Egypt is
economically depressed with high unemployment, low rural household incomes, and underdeveloped agricultural export potential. The AERI (Agricultural Exports and Rural Incomes) project is a 4-year USAID-funded development partnership between MUCIA (Midwestern Universities Consortium for International Activities, or essentially the Big 10 Universities) and 2 NGO’s (ACDI-VOCA and CARE). MUCIA, acting as a consortium competes for projects where the combined expertise of the member universities can be used for purposes of international development. In the current AERI project, the University of Illinois is the lead institution. The aim of the AERI project is to enhance the income of smallholder farmers in Upper Egypt by strengthening the competitiveness of Egypt’s horticultural and livestock sectors through increased exports to Europe and increased milk production for the domestic market.

The field project began in January 2004, with 25 US faculty. Faculty traveling to Egypt were divided into 3 teams – Biotechnology, Public-Private Linkage, and Capacity Building of College of Agricultures in Upper Egypt. The capacity building portion of the project originally focused on linking departments of animal sciences, agriculture economics, and horticulture from the MUCIA universities with their counterparts from agricultural colleges in Upper Egypt. After the first round of visits the Egyptian Advisory committee recognized the high relative value of livestock to smallholders. They also realized the importance of veterinarians to this sector and the multiplier effect veterinarians have with farmers. Therefore, they decided to extend the capacity building portion of the project to veterinary colleges in Upper Egypt. In February 2005, Dr. Kent Hoblet and Dr. Brad Seguin (University of Minnesota) spent 3 weeks in Egypt and visited 3 veterinary medical faculties at Cairo, South Valley (Qena), and Assiut Universities. Their objectives were to evaluate human, curricular, and infrastructure resources; to identify needs and build capacities to link productively with the private sector; and to build relationships that would be sustainable after the formal USAID project is completed.

In addition to touring facilities, Drs. Hoblet and Seguin conducted on-site interviews of Deans, Department Heads, and faculty members. They met with the Chief Veterinary Officer and other section chiefs from the Egyptian Public Veterinary Services and with ACDI/VOCA officials. At each of the colleges they presented an overview of the veterinary medical curricula in-place at The Ohio State University and the University of Minnesota. Based on their observations and needs assessment, they have developed an action plan. As part of the plan, key Egyptian faculty will come to the US to observe veterinary medical teaching programs, particularly in applied and clinical areas. In addition, faculty from the US will travel to Egypt to meet with administrators and faculty, observe resources and teaching programs, and present seminars/workshops. The plan calls for sustaining this effort by using distance education and finding resources to improve the teaching in Egyptian universities.
Plenary Week

How and when should regulatory medicine issues of USDA accreditation, biosecurity, and control of infectious diseases related to the clinical year of the veterinary curriculum be addressed? For the past 2 years at OSU these topics have been the focus of 2 days of instruction in what has been called the Plenary Week. This is the week in March immediately before students enter their clinical year. A third day, organized by Dr. C. A. Neer is devoted to Professional Development and the final two days are reserved for orientation to the Veterinary Teaching Hospital.

The Regulatory Medicine day has been planned and led by the State Veterinarian, Dr. David Glauer (DVM, 1966), USDA/APHIS area-veterinarian-in-charge, Dr. Sue Skorupski (DVM, 1983) and the Director of the Ohio Department of Agriculture’s Animal Disease Diagnostic Lab, Dr. Beverly Byrum (DVM, 1989, PhD, 1994). The keynote speaker for both years has been Dr. Linda Detwiler (DVM, 1984). Dr. Detwiler served with USDA/APHIS/VS in numerous capacities including that of Senior Staff Veterinarian of USDA’s Emergency Programs. In that role she coordinated all surveillance, prevention, and education activities for Bovine Spongiform Encephalopathy. Dr. Detwiler is currently a consultant for the food industry. In her presentations, she stressed the importance of accredited veterinarians to the nation’s food supply, public health, and economy as well as the numerous exciting opportunities for veterinarians that are available in regulatory medicine.

Biosecurity and control of infectious diseases were covered on the Community Health day. The focus of the day was to help students avoid transferring pathogens among their animal patients as well as among themselves during their clinical year and throughout their careers. Presentations included a panel of veterinarians involved in Local Boards of Health: Dr. Walt Threlfall, (DVM, 1966) Delaware County Board of Health; Dr. Martha Mooney, (DVM, 1978) from Morrow County; and Dr. Brad Berlekamp, (DVM, 1987) from Shelby County. The keynote speaker for the Community Health Day was former faculty member, Dr. Paul Morley. Dr. Morley is currently Hospital Epidemiologist and Associate Professor at Colorado State University.
GRADUATE STUDENTS

News from the Graduate Program

Three students graduated during Winter Quarter, 2005:

<table>
<thead>
<tr>
<th>NAME</th>
<th>DEG</th>
<th>ADVISOR</th>
<th>RESEARCH TOPIC</th>
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<tbody>
<tr>
<td>Marli Azevedo</td>
<td>PhD</td>
<td>Dr. Linda Saif</td>
<td>Efficacy of rotavirus-like particle vaccines and pathogenesis of human rotavirus evaluated in a gnotobiotic pig model</td>
</tr>
<tr>
<td>Alifiya Motiwala Ghadiali</td>
<td>PhD</td>
<td>Dr. Sreevatsan</td>
<td>Studies on <em>Mycobacterium avium</em> subsp. <em>paratuberculosis</em>: genotypic and phenotypic variations</td>
</tr>
<tr>
<td>Norma Ramirez</td>
<td>PhD</td>
<td>Dr. Sreevatsan</td>
<td>Studies in cryptosporidium maintenance of stable populations through in vivo propagation and molecular detection strategies</td>
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Melanie Abley, (advisor: Dr. Julie Funk) has joined the graduate program for Spring Quarter to work on an M.S.

Dr. Päivi Rajala-Schultz, Assistant Professor, has replaced Dr. Gordon as the Graduate Studies Chair. Dr. Rajala-Schultz has been actively involved in graduate education since joining the Department in 1999.

Dr. Rajala-Schultz’s general goal for the graduate program is to make graduate education flourish, with overall faculty participation and support. Furthermore, she hopes to ensure that our students receive the highest quality graduate education so that in the long term, OSU will become nationally (and internationally) recognized as "the place" to receive graduate education in veterinary preventive medicine. A more immediate objective is to develop, along with other faculty, new departmental graduate-level courses on study design and applied data analysis with emphasis on veterinary applications. In addition, to ensure funding, the goal is to apply for training grants for graduate education and to increase resources available for graduate stipends.
Applications are being accepted for the MPH Veterinary Public Health Specialization

The Master of Public Health degree program with a specialization in Veterinary Public Health is accepting applications from potential candidates. The MPH-VPH students will start this new program in the Fall of 2005. The MPH-VPH curriculum will focus on zoonotic diseases, food-borne illness, environmental health, and biosecurity among other veterinary public health issues. Students will also receive advanced training in biostatistics, epidemiology, and health systems management. To obtain more information about the MPH-VPH degree, please visit our web page (www.vet.osu.edu/vetpublichealth), and for a detailed description of the admissions process visit the School of Public Health web page (www.sph.osu.edu). Also, interested students may contact the advisors directly:

Dr. Armando E Hoet, Program Coordinator (hoet.1@edu.osu), &
Dr. Thomas E Wittum (wittum.1@osu.edu).
Andrew Bowman Awarded AASV Scholarship

Andrew Bowman, VME II, (DVM/MS dual degree student; Advisor: Dr. Julie Funk) won a $2,500 scholarship at the American Association of Swine Veterinarians (AASV) meeting for his research presentation entitled “Prevalence of *Yersinia enterocolitica* in different phases of production on swine farms”.

The American Association of Swine Veterinarians Foundation awarded scholarships, totaling $25,000, to 15 veterinary students during the 2005 AASV annual meeting held in March at Toronto, Ontario, Canada.

Fifteen students were selected to present during the annual meeting from a pool of 34 that had submitted abstracts for consideration. All student presenters received a $500 travel stipend from Alpharma Animal Health to attend the annual meeting.

Judges representing private practice, academia, and industry sectors selected awardees based on communication skills in the writing the abstract and the oral presentation of the case report, as well as the applicability of the research to swine medicine.

The awards were presented on Monday, March 7, 2005, at the AASV Luncheon.
Food Safety Research and Response Network

Drs. Julie Funk, Teresa Morishita, Linda Saif, and Tom Wittum are participants in a new USDA-funded program to learn more about the pathogens that cause acute gastroenteritis or food poisoning.

The Food Safety Research and Response Network (FSRRN) is a multi-institutional, multidisciplinary team consisting of more than 50 food safety experts from 18 colleges and universities who will investigate several of the most prevalent pathogens associated with food-related illness. FSRRN is funded by a $5 million grant from the U.S. Department of Agriculture Cooperative State Research, Education, and Extension Service.

The FSRRN will serve as a response team of experts. Other federal and state agencies may use the group to conduct focused research designed to control major episodes of food-related illness. This may include food-related problems as a result of agroterrorism or intentional contamination.

The 17 other institutions taking part in the project are: Cornell University, Iowa State University, McMaster University, Mississippi State University, North Carolina State University, North Dakota State University, Tuskegee University, University of Arizona, University of California-Davis, University of California-Berkeley, University of Florida, University of Illinois, University of Kentucky, University of Minnesota, University of Montreal, Washington State University, and West Texas A&M University.

USDA/NRI Animal Protection Grant

Dr. Päivi Rajala-Schultz, Assistant Professor, has been awarded funding for her USDA/NRI Animal Protection grant proposal “An economic approach to optimal dry cow therapy strategies”. Dr. Rajala-Schultz’s proposal was categorized as outstanding and ranked #1 by USDA/NRI Animal Protection review panel. The award is $349,985 for a 3-year period. Collaborators in the research project are Dr. Fred DeGraves in the Department of Veterinary Preventive Medicine and Drs. Joe Hogan and Normand St-Pierre in the Department of Animal Sciences.

Mastitis continues to be the most common and costly dairy cow disease. Antibiotic treatment of all quarters of all cows at the end of lactation
(total dry cow therapy) has been recommended for decades as an essential part of mastitis control in US dairies. However, with increasing concerns over antimicrobial resistance and due to the changes in the nature of mastitis, the validity, usefulness, and cost-effectiveness of this approach has been questioned. With this funded research, Dr. Rajala-Schultz’s team will evaluate the effect of selective dry cow therapy on udder health, milk production, milk quality, and herd profitability. Their overall goal is to determine if selective dry cow therapy can maintain udder health in US dairies. The new resulting knowledge is expected to demonstrate that antibiotic usage can be reduced without sacrificing udder health, milk quality, or herd profitability. The results will have immediate utility to the dairy industry and dairy producers. Specifically, reduced antibiotic use would improve profitability of dairy operations by reducing treatment costs. It would reduce antibiotic selection pressure and consequently, may reduce the development of antibiotic resistant bacteria.

### New Research Funding
**(Since January, 2005)**

<table>
<thead>
<tr>
<th>P.I.</th>
<th>PROJECT</th>
<th>FUNDING AGENCY</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>Drs. Julie Funk &amp; Lingying Zhao (Dept. of Food Biological and Environ. Sciences)</td>
<td>Longitudinal evaluation of the effect of ventilation and environmental management of swine barns on <em>Salmonella</em> prevalence in finishing swine.</td>
<td>National Pork Board</td>
<td>$40,076</td>
</tr>
</tbody>
</table>
Introduction

The Ohio State University College of Veterinary Medicine is located in Columbus, OH. In the 1960s, as the city began to grow, college administrators realized the importance of forming a relationship with a rural clientele to continue to give students experience in on-farm medicine. To fulfill this need, the college purchased a mixed animal practice from an alumnus to serve as an ambulatory practice. Since that time, while many other colleges have abandoned their traditional ambulatory practices, choosing to utilize private practices or tracking students into other types of experiences, OSU Large Animal Services has continued to be a popular core rotation with the students. The OSU practice, while operated in a non-traditional way by university standards, provides a reliable source of veterinary services for clients in the area. Furthermore, 75% of the total costs of conducting the teaching practice, including all faculty and staff salaries and benefits, are recovered from practice earnings.

Practice Description

OSU Large Animal Services is located in Marysville, a town of 16,000 people which serves as the seat of Union County (pop. 41,000). Marysville is located about 35 miles from the main Columbus campus. The practice is currently operated out of the original building; however, groundbreaking for a new clinic with student housing is planned for 2004. For the past several years, the practice has been limited to providing large animal services. In the present location, students are housed in a mobile home adjacent to the clinic. The practice expanded in 1999 to include a second location in West Liberty, about 20 miles west of Marysville, when L. C. Zilles, a retiring alumnus, donated his practice to OSU. While the practice currently maintains two offices for dispensing purpose, all faculty and students are based at the Marysville office. The practice currently has 16 dairy clients, ranging in size from 50-700 cows, on scheduled herd health programs. Routine service is also provided to at least 15 other dairies, 41 beef clients, 14 swine clients, 16 small ruminant herds, and 22 camelid clients. The remainder of our 841 active accounts include equine clients and smaller farms that we visit less frequently.

The practice area encompasses portions of 13 counties. Although service cannot be provided to a backyard owner 50 miles away, clinicians will travel long distances to provide service to a herd health production
OSU Large Animal Services is a full-service large animal clinic providing production medicine, individual animal, and emergency services to our clients. While faculty are responsible for some teaching at the main Columbus campus, they do not rotate through other clinical sections. Production services offered include records analysis, nutrition and cow comfort consultation, milk quality, reproductive, calf and vaccination programs, and quality assurance. Individual animal care, ultrasound, and endoscopic and radiology exams are also provided. Routine surgeries are usually performed on-farm. The practice also provides year-round, 24-hour emergency services to our clients. An in-house milk microbiology laboratory provides client services as well as serving as a referral milk quality laboratory for practitioners throughout Ohio. Other on-site laboratory services include AGID testing for Johne’s disease, camelid and equine IgG testing, fecal examination, and culturing.

Faculty and Staff

Four full-time clinical-track faculty members provide service and clinical teaching in the practice. They are supported by three part-time office personnel. A contract cleaning service provides janitorial work once a week. Marysville faculty are members of the Department of Veterinary Preventive Medicine, one of three academic departments in OSU’s College of Veterinary Medicine. Dr. Bimbo Welker serves as on-site director. He also provides services to the majority of the equine clients. The other faculty members are Drs. Margaret Masterson, Richard Meiring, and Lowell Midla. Three of the doctors have completed residencies, and the faculty have a combined 83 years’ practice experience (36 years in private practice and 47 years at the university).

In addition to providing full-time clinical teaching in their rotation, the faculty are responsible for leading four elective classes: Bovine Palpation, Dairy Records, and Selected Topics in Dairy Production Medicine, which are taught on the Columbus campus, and a week-long Dairy Capstone experience, taught on the OSU Wooster campus. Additionally, the four faculty members give 34 hours of lectures in other courses each year.

Course Description

Marysville Ambulatory is a two-week rotation required of all fourth-year professional students. The class is a three-credit-hour course and is graded (A-E). Typically, each rotation consists of five or six students. Occasionally an additional student from another country or university will join the rotation as part of his or her elective experience. At the beginning of the rotation, students are given a packet of pertinent articles and homework pages that they are expected to completed and be prepared to discuss during the rotation. The students’ day begins at 7:30 a.m. with a morning conference on some aspect of clinical or production medicine. Doctors then divide up calls and leave the practice around 9:00 a.m. As in any farm-based practice, the number and type of cases on any given day vary widely. In addition to discussing cases in the trucks, each doctor maintains a quiz book that students work through. The books are not all alike but reflect each doctors’ interests. Pages in the book vary in difficulty so that discussions can be tailored to the level of experience of individual students. In the evenings, students are expected to discuss with their fellow classmates whatever they have
learned in the trucks during the day, so that clinicians do not have to cover the same pages with every student.

When students are on farms, they are expected to conduct themselves in a professional manner. Students are encouraged to interact with clients in discussions and gathering history. They are required to perform an examination on as many animals as possible and to formulate a diagnosis and treatment plan. After discussing the therapeutic plan with the clinician, they are given an active role in administering treatments and performing surgeries under faculty supervision. While they are instructed to act with confidence, even if they have never performed a procedure, they are also encouraged to ask specific questions if they have any uncertainties. In order to merge teaching and service to clients, students have varying roles in performing technical skills, depending on the case and client. For example, during routine palpation, students understand that they may be asked to skip a cow if the producer indicates that she is in very early pregnancy or a repeat breeder. Students also participate in reporting drug withdrawal times and properly labeling any medications to be left on farm.

When the calls are finished, students are responsible for cleaning and restocking the trucks and for preparing lab samples for shipping or conducting lab tests in-house under supervision. They also assist the faculty in writing bills and maintaining records. Students are also responsible for cleaning and sterilizing equipment and for washing the clinic laundry.

While there is room for all students to stay in the mobile home, three are required to stay each night and on weekends. “On call” students answer phones, dispense medications, and care for any hospitalized patients. If an emergency call comes in, students must gather information about the case and call the faculty member on duty. The faculty member then picks up two students to go on the call while one student remains at the clinic to answer the telephone.

Program Finances

The OSU Large Animal program attempts to financially mimic a private practice. The college contributes $201,583 in state monies toward the operation. The rest of the costs of operation, including faculty and staff salaries and benefits, practice vehicles, building and equipment expenses, supplies and services, university overhead, and student living expenses, come from practice revenue. Last year (FY’03) the practice generated $675,741 in gross income. For FY’04, the total budgeted expenses for the entire operation are $810,103, of which $194,930 will be supplied from state funding. The current average call charge is $137.15.

The practice trip charge is based on distance from the clinic. Once on the farm, there is an hourly rate for most services ($84.00/hour for food animal, $110/hour for equine). Time is calculated based on how long the clinician would take to complete the work if he or she were alone; in this way clients are not charged for teaching time spent with students discussing a case. However, students are usually pushed to be efficient, and discussions are saved for travel time. The practice generates about 35% of its income from dispensing. There is generally a 10-30% margin
The practice offers volume discounts and an incentive program to clients if they pay cash for dispensed medications. For products on which the university receives a discount, prices are based on regular veterinarian costs and over-the-counter catalog prices. An 18% annual interest rate is charged on all accounts more than 30 days past due.

The practice ended FY'03 with a cash-on-hand balance of $53,240. Part of this profit has been set aside each year for a “rainy day fund,” which now contains $40,000. In a program unique within the college, the remaining profit has been divided and distributed back to faculty and staff as bonuses. These bonuses act as incentives to help offset the additional time faculty spend covering emergencies, as well as giving the faculty and staff a sense of ownership in the practice. This sense of ownership encourages faculty to stay aggressive and promote practice growth, thus maintaining a high-quality case load for teaching.

Teaching Evaluation

Despite the fact that it is a required fourth-year rotation in a student body that is about 80% companion animal-oriented, Marysville Ambulatory has been consistently rated among the top rotations by students. In three of the last four trimesters, students rated the rotation highest among all clinical rotations. While faculty in other rotations indicate that timid students often try to hide and shirk duties, students actually cite the individual attention and hands-on atmosphere in Marysville as reasons that they like the rotation. The more casual teaching atmosphere of the trucks allows students to ask clinicians personal questions that they would hesitate to ask in a formal teaching setting. For example, they often ask, “How are family and professional life balanced?” and “What risks are associated with pregnancy in veterinary medicine?” The college enrollment is about 80% female, so having a female faculty member to mentor and attract women into large animal medicine is highly beneficial.

Discussion

The ambulatory clinic is a valuable resource to The Ohio State University in several ways. The practice provides a cost-effective and final link in teaching students the many facets of agricultural practice and production medicine, aspects of veterinary medicine that are best taught in an ambulatory setting. Here students get to see how previously taught epidemiological principles are used in practice, whether it is to calculate the disease incidence in a shipping fever outbreak based on animals they treated that day or using the specificity of a Johne’s AGID to determine what to tell the farmer about the thin cow observed yesterday. Quality assurance and AMDUCA guidelines are put into practice every day as students dispense medications.

Students also get to experience other aspects of private practice that they do not encounter in the main Veterinary Teaching Hospital. They are sometimes asked to take inventory to help write up bills, or to explain to a weekend client that “the call will need to be cash” if his bill is overdue. They may be asked to take out the trash or to help repair a leaky sink if calls are finished. These are all issues that any practice owner faces, but from which students are often insulated in a large
teaching hospital. The same types of management issues often become barriers to veterinary career success.

Because OSU acquired an already established practice, there was minimal objection from alumni in the area with their own established practices. Likewise, transitioning clients from a retiring alumnus to the university allowed the practice to expand into the West Liberty area without “stealing” clients from other practices. As in any location, some clients do switch veterinarians. Since the practice must remain financially solvent without a great deal of university support, the clinic’s prices are not the lowest in the area. Some clients choose to use other practices because they do not want students working on their animals; however, clients who do use OSU feel that they get excellent service from the practice. Also, because the practice has retained the same veterinarians over a long period, the clients develop a degree of trust in the faculty members that can then be transferred to their students.

The producers the students interact with are regular clients of the practice, as opposed to consultant situations or clients visited for teaching purposes only. Because the faculty always have students with them, clients have come to accept this as normal, whereas when students work with private practitioners or only visit the farm occasionally clients may be wary of students. OSU Large Animal Services’ primary purpose is to educate students. As in any practice, a clientele must be maintained to fulfill this mission. On the other hand, we do not have many of the same concerns as a private practitioner whose livelihood is linked to his client base. In fact, many of our producers take an active role in educating students. They will often quiz them or take a student to help sort animals while the clinician finishes other tasks.

Another possible advantage of a university-based ambulatory practice is that the faculty are accustomed to supporting treatment protocols with evidence from the scientific literature. The university also has the resources to make that literature available to students. In a private practitioner-based learning system, it may be more difficult to separate practitioner preference from scientific fact, and veterinarians may be more reluctant to have students question their therapeutic programs. Likewise, the Marysville practice’s financial records are completely open to students, whereas private practices may not be as willing to open their financial records.

The college has often been questioned as to why we require all students to rotate through Large Animal Services. Certainly the practice’s clinical faculty would have an easier job if we only had to work with students interested in production agriculture. However, the college’s general faculty, as well as faculty involved in the Marysville rotation, are committed to giving every student an on-farm ambulatory practice experience. The major reason for this is to enable every student to have first-hand experience with both large- and small-scale livestock operations. Thus, in the future, even if our graduates enter companion animal practice, they can answer with experience and understanding when an urban resident asks their opinion about issues regarding food animal production and agriculture. Additionally, many smaller livestock operations in the future will be located at the rural-urban interface, and
these small farms may be the first targets of an agro-terrorism threat. Companion animal veterinarians will need to be familiar with diseases, operations, and drug dispensing policies to serve these small hobby farms.

Thirty-five years ago, the college administrators demonstrated great foresight in purchasing The Ohio State University Large Animal Services. By visiting working farms, students get to observe all aspects of farm family life. They see how producers live, how they transfer knowledge from one generation to the next, how they manage labor problems, and the long hours they work. They come to understand that livestock producers can care deeply for their animals yet be willing to slaughter them when the time comes. Most importantly, they see the pride that they take in producing the nation’s food. Veterinarians have been entrusted to protect the livelihood of these farmers, both by caring for their animals and by safeguarding the human food they produce. A university-based ambulatory practice provides an excellent way to illustrate this responsibility to all students who will soon call themselves veterinarians.

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CONTACT INFORMATION

We continue to receive feedback and comments from departmental alumni from all over the world. We greatly appreciate this, and would like to hear from more. Please let us know that you are receiving this newsletter and give us an update on yourself.

The Veterinary Preventive Medicine Newsletter is published electronically on a quarterly basis. It is primarily distributed to College faculty, VPM graduate students, departmental alumni, former and retired faculty, and others who have been or are currently associated with the Department.

Please submit e-mail addresses, articles, and comments/suggestions to Jeff Workman, Extension Program Assistant, at workman.45@osu.edu or 614-292-9453.

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