OSU Large Animal Services recently opened its new ambulatory clinic facilities located at 16410 County Home Road in Marysville, Ohio. Since its purchase from Dr. John Andreas in 1969, the clinic had outgrown its
original facility off Milford Road, and expansion had become impossible
due to urban sprawl. The number of clientele had expanded further with
the acquisition of Dr. L. C. Zilles’s practice located in West Liberty in
1999. The facilities had deteriorated greatly including the house trailer
used for student housing.

The new 10,000 square-foot building includes a surgery suite, pharmacy,
laboratory, conference room, faculty offices, and housing for students.
The new surgery suite will permit more “haul-in” work, particularly with
equine clientele. The living quarters allows a maximum of 12 veterinary
students to live at the facility and assist the faculty veterinarians with
medical services as part of their fourth-year rotation. The practice
currently serves patients in 13 Ohio counties and has approximately 840
clients.

Funding for construction of the new facility came from a combination of
sources, including the sale of the old buildings and land at the former
location, with the balance coming from college funds in support of
teaching programs. Naming opportunities are available for the clinic
building, with funds being used for an endowment for building
maintenance.

Ohio State is one of six Big Ten universities with a college of veterinary
medicine, and the only college among those with such an extensive
ambulatory clinic. The Tufts College of Veterinary Medicine in
Massachusetts has a remote ambulatory clinic in Connecticut, and the
University of California at Davis has a similar one in Tulare. The
Marysville Clinic is unique in that all students must complete a required
rotation there.

Students typically begin their day with a seminar from 7:30 to 8:30 am
that reinforces the basic knowledge needed to operate an ordinary large
animal practice. For the remainder of the day students (2 per truck) will
perform routine duties such as: make farm calls with one of the faculty
veterinarians, stock trucks, and work with clientele. A tremendous
amount of teaching takes place in the truck. Students also work in the
in-house Milk Quality Laboratory to provide bacteriology support and
consultation on milk quality problems to veterinarians throughout Ohio.
On evenings and weekends at least 3 students are on call for
emergencies as the clinic provides year-round, 24-hour emergency
services.

Some of the services offered at the clinic include: diagnosis of individual
animal disease; herd-based reproduction programs; herd performance
evaluation and consultation; record analysis; milking system analysis; milk quality program; milker training schools; ration evaluation; nutritional consultation; replacement rearing programs; general and orthopedic surgery; in-house laboratory support; castration, dehorning, and routine production procedures; and breeding soundness examination of bulls.

OSU Large Animal Services became a part of the Department of Veterinary Preventive Medicine in 1994. Faculty Veterinarians include: Drs. Bimbo Welker, Richard Meiring, Lowell Midla, & Martey Masterson. Staff members are Kathy Cotter, Pat Brehm, & Janet Scheiderer.

Welcome Dr. Carrie Kraly

We are pleased to announce that Dr. Carrie Kraly has accepted the faculty position of Instructor, Regular Clinical Track in the Department and Assistant Director with University Laboratory Animal Resources (ULAR). Dr. Kraly has just completed her DVM degree here at The Ohio State University. She received her Master of Laboratory Animal Science degree from MCP Hahnemann University in Philadelphia, PA in 2001. Her undergraduate degree in Zoology was completed at Ohio Wesleyan University.

Dr. Kraly has worked for ULAR in the past as an Animal Health Technician and Laboratory Animal Caretaker. She has completed a Laboratory Animal Medicine Externship at the University of Maryland. She also has experience as a Laboratory Technician and as a Veterinary Technician. You can contact Dr. Kraly at (614) 292-7159 or kraly.4@osu.edu
Advanced Dairy Production Medicine Rotation for Fourth Year Professional Students

One way to dichotomize dairy practitioners is those who engage in traditional “fire engine” practice (healing sick cows) and those who engage in “production medicine” practice (enhancing farm profitability). The current veterinary medicine clinical curriculum is focused almost exclusively upon preparation for traditional practice except for the two weeks spent at the OSU Large Animal Services in Marysville during the student’s clinical year. In the Spring of 2002, Drs. Kent Hoblet and William Weiss developed and offered a one-week long rotation entitled “Applied Problem Solving on Dairy Farms”. Under the leadership of Dr. Lowell Midla, this rotation has developed further into an intensive week of advanced dairy production medicine education and on-farm application of that knowledge. It is now known as the “Capstone Rotation in Dairy Production Medicine” and offered on the OARDC Wooster campus each Spring during the first week of the elective quarter or immediately after 4th year students complete their clinical rotations.

This year, each day of the rotation had one of five focus areas: records analysis, nutrition, milk quality, reproduction, and facilities. Days began early with two to three hours of lecture followed by a visit to a dairy where the dairy operator felt that there was room for improvement in the particular area of that day’s focus. Students were encouraged to identify potential interventions to improve the dairy’s performance as well as to evaluate the entire operation and assess whether interventions in other areas may be more economically beneficial (identify the bottlenecks). Upon return to the classroom, faculty led the students in a discussion of findings and a “SWOT” session (Strengths, Weaknesses, Opportunities, Threats). The students’ homework was then to collaboratively compose a letter to the dairy with their recommendations.

This past Spring there were ten student participants. Feedback from the students was uniformly and enthusiastically positive. Strengths of the course mentioned most frequently by the students included the discussions / SWOT sessions, the “getting out of the classroom to really apply our knowledge”, and the outstanding faculty. Drs. Grant Frazer, Kent Hoblet, Cheney Meadows, and Rich Meiring from the Department; and Drs. K. Larry Smith, Normand St-Pierre, and William Weiss from the Department of Animal Sciences were the primary faculty involved. Special thanks goes to Monsanto Dairy Business for sponsoring an
evening meal where Dr. Fred Gingrich (OSU, 1995; Adjunct Assistant Professor) of Ashland, Ohio spoke to the students about applying dairy production medicine on smaller dairies. Partial support of the Capstone Rotation was provided by funds from the endowment established by Dr. Tim Trayer (OSU, 1979) of Denver, PA.

Lowell T. Midla, VMD, MS (OSU, 1997) is an Assistant Professor-Clinical. Dr. Midla received his veterinary medical degree in 1992 from the University of Pennsylvania. He joined the Department in 2001. Dr. Midla and his wife, Joanne, had their own general practice in Southwestern Pennsylvania from 1997-2001. His research interest is diseases of ruminants with current focus on bovine foot health.

Drs. Richard Ford and John Hubbell, Interim Dean of College

Dr. Richard Ford was recently honored as a Distinguished Alumnus of the College of Veterinary Medicine during the recent Senior Oath and Hooding Ceremony. He received both his DVM and MS degrees from the College in 1972. Dr. Ford is known to many pet owners throughout the US through his work with the media. He wrote and hosted a seven part PBS television series entitled “Healthy Pets’ Healthy People”. In addition he has a nationally syndicated radio program focusing on unique and interesting animal health care issues. Dr. Ford is also well known for his expertise in companion animal diseases and bioterrorism. He has published numerous articles on infectious diseases and vaccination strategies. He has presented scientific lectures around the world on internal medicine, bioterrorism, and veterinary response to bioterrorism. Dr. Ford began his military service in 1972 and he continues today in the Air Force Reserve. In 2000 he was promoted to Brigadier General of the Air Force. While in service to his country, he has also served as an advisor to the Air Force Surgeon General on issues of bioterrorism and weapons of mass destruction.

Dr. Ford is currently Professor of Medicine in the Department of Clinical Sciences at North Carolina State University. He is also an honorary Diplomate of the American College of Veterinary Preventive Medicine.
Prevention and Control of Avian Influenza in the U.S.

Dr. Richard Slemons and the College of Veterinary Medicine hosted a two-day workshop on the OSU campus for collaborators participating in the Live Bird Market (LBM), Wild Bird Virus Surveillance, Geospatial Information System (GIS), and Education umbrella projects that are objectives 3, 4, and 5 of the USDA NRI Coordinated Agricultural Project (CAP) grant on Prevention and Control of Avian Influenza (AI) in the United States. The program committee included Drs. Carol Cardona, University of California-Davis; Eva Wallner-Pendelton, Pennsylvania State University; and Dr. Slemons. The 30 workshop participants represented a total of 17 universities, research centers, and government agencies. The objectives of this workshop were to standardize laboratory and field protocols, assure compatibility of GIS databases, develop guidelines for coordinating research efforts and reporting, and to coordinate efforts for developing additional educational materials. In addition to the educational products, the results stemming from these collaborative efforts will contribute to further defining the temporal, spatial, and host relationships among type A influenza viruses in wild birds, captive birds, and poultry. Thereby, providing wildlife biologists, regulators, researchers, and producers with additional information for making scientifically-based decisions when developing and implementing prevention, control, and eradication strategies for AI and AI viruses.

The research efforts of participants in these three objectives of the USDA CAP Grant on AI are closely coordinated with the participants in the other five objectives in the USDA grant, the ultimate goal being to protect wildlife, exotic birds, captive birds, and poultry populations from AI outbreaks and results could even have public health implications.

Dr. Daniel Perez is the project director and Dr. Slemons is the project co-director for the $5M USDA AI funded project and the grant is administered by the University of Maryland.

Avian Medicine and Other Non-Mammalian Species Medicine

VM 608 (Avian Medicine and Other Non-Mammalian Species Medicine) is a course in the core curriculum that involves the basic study of avian, reptile, amphibian, and fish medicine including anatomy, physiology,
pathogenesis of disease, diagnostic, treatment, disease prevention, control, and eradication. For each of the classes there is a focus on basic and/or unique features of anatomy, physiology, and husbandry and how these features relate to preventive and clinical medicine with the respective goals of maintaining good health or returning these animals to good health. The second focus of the course is the basic occurrence, pathogenesis, diagnosis, treatment, prevention, control, and eradication of selected important diseases. The third focus is on the zoonotic diseases related to these classes of animals.

This course was developed because the faculty of the College voted for an entry level course addressing these four classes of animals when the latest curriculum was developed. The justifications for this vote were as follows:

First, the AVMA recognizes a professional responsibility in these areas and included non-mammalian medicine in the AVMA accreditation requirements for colleges of veterinary medicine.

Second, changes in our society are creating increasing demands for individuals with expertise in various aspects of non-mammalian medicine and there are an increasing number of rewarding professional opportunities (good jobs) in non-mammalian medicine for veterinarians with interest in these areas.

Third, this course consolidates most non-mammalian medicine materials into one course. Prior to the current curriculum, materials were included in the mammalian systems courses where they were a distraction. Consolidating this scattered information into one place is more efficient and facilitates learning.

In a shrinking world of “demographically fatigued” areas, we desire to raise the level of veterinary awareness and expertise in non-mammalian medicine so veterinarians can increase their contributions to the conservation and preservation of fish, amphibians, reptiles, and avian resources.

Dr. Richard Slemons serves as team leader of this course, which is offered Spring quarter.

The following pictures show Dr. Richard Slemons and Associate Dean Jean Sander from the Department teaching during the Avian Anatomy-Necropsy Laboratory section of the course.
Ohio Department of Rehabilitation and Correction Partnership

The College of Veterinary Medicine has had a working relationship with the Ohio Department of Rehabilitation and Correction (ODRC) for over 60 years. Since 1989, the Department of Veterinary Preventive Medicine has held a contract to provide clinical veterinary care and population management medicine to the herds of the ten farms (11,027 acres) operated by the ODRC. Its goals include improving efficiency of farm production, safeguarding the health and promoting humane care for the animals owned by ODRC, and promoting and protecting public health of the 42,000 inmates consuming food produced on the farms and processed in the system. The mission of the project is to develop an integrated program of service to ODRC farms that will concurrently provide a field laboratory for teaching of veterinary students and research opportunities for faculty. The result will help the state’s agricultural community benefit from controlled study and operation of the farms.

Dr. Fernando Silveira, Assistant Professor, Clinical works primarily with the ODRC beef herds in which all beef is produced for inmate consumption. Our specific goal is to maximize pounds of beef per acre of land at every farm. To achieve this goal they must increase production and productivity by improving genetics and management.

The beef operations include both cow-calf operations and feedlots. The maternal side of the breeding program consists of commercial cows composed of Hereford, Shorthorn, Angus, and Murray Grey genetics. Continental breeds (Charolais & Simmental) will be used as terminal sires. The farms also work closely with Select Sires, Inc. to identify proven sires, and are currently in the third year of their artificial insemination (AI) program. Over the past three years, they have been able to improve the rate of gain and reduce time to slaughter in most of the operations. They have also observed an increase in fertility and number of calves weaned. Currently, the top performing operation is the Mansfield Correctional Institution where 18 calves averaged 1,413 lbs at 13 months of age.

Dr. Fernando Silveira joined the Department in 2002. He was a large animal resident at the OSU Veterinary Teaching Hospital from 1996 to 1999. He is originally from Brazil and received his MV from the Federal University of Goias. In Brazil, he managed a 14,000 head beef herd.
Update from the Dairy Health Management Certificate Program

The Ohio Dairy Health Management Certificate Program is offered through the Department’s OSU Veterinary Extension Unit. The modular program is led by Dr. Bill Epperson, Dairy Extension Veterinarian and Associate Professor, and consists of an educational series designed to develop applied skills in dairy health management and decision making. The objective is to enable participants to develop quantitative and personal skills that can be used to promote production medicine services. This program, the first of its kind in Ohio, is modeled after successful programs conducted by other universities.

The modular program consists of a 3-year curriculum. Participants meet formally each quarter (12 modules total). Each modular session uses 2 full days. Each module is followed by out-of-class assignments (homework) that emphasize the application of principles covered in class. This program encourages participants to apply principles directly to their dairy clients. As an example, following the first class, participants selected a client farm, interviewed the producer to evaluate farm goals, and assess present farm productivity. Several participants noted their client farms had long calving intervals. A written plan of action was produced to address the reproductive problems in that herd, and specific goals were set for the next year.

Our first class consists of 15 participants representing veterinary practices in Ohio, Indiana, New York, and Pennsylvania. The average participant represents a clinic of 5 veterinarians, with each clinic servicing, on average, 65 dairy farms and 8,700 dairy cows. Therefore, this program has an effective “reach” of approximately 75 rural veterinarians, servicing approximately 130,000 dairy cows in 975 herds. In terms of cow numbers, this is equivalent to approximately 50% of the Ohio dairy cow inventory.

Enrolled veterinarians expect to see a general decrease in the number of
farms in the future, but still expect to provide professional services to the same number of cows. They expect individual sick cow work to decrease, and some expect it to nearly cease.

Overall, participant veterinarians see the future role of the veterinarian as providing service to the dairy business. They see themselves assuming roles in farm management, employee training, and economic/business evaluation. Many view their role as helping dairies transition to include more cows, hired immigrant workers, and a new generation of owners.

**List of Participants**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Ron Baldridge</td>
<td>Ottawa Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Greg Edwards</td>
<td>Napoleon Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Lowell Midla</td>
<td>OSU Large Animal Services</td>
</tr>
<tr>
<td>Carl Schlatter</td>
<td>Tri-County Animal Clinic (Ohio)</td>
</tr>
<tr>
<td>Cody Stoller</td>
<td>Tri-County Animal Clinic (Ohio)</td>
</tr>
<tr>
<td>Eric Shaver</td>
<td>East Holmes Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Dereck Klopfenstein</td>
<td>Dairy Vet. &amp; Mangmt. Services, P.C. (Indiana)</td>
</tr>
<tr>
<td>Fred Bennett</td>
<td>Lisbon Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Eric Gordon</td>
<td>Lisbon Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Rick Daugherty</td>
<td>Sugarcreek Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Jim Honigford</td>
<td>Sugarcreek Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Greg Kurtz</td>
<td>Kurtz Veterinary Clinic (Indiana)</td>
</tr>
<tr>
<td>Melvin Wenger</td>
<td>Orrville Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Greg Roadruck</td>
<td>Orrville Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Bill Yost</td>
<td>Orrville Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Tom Wakefield</td>
<td>Perry Veterinary Clinic (New York)</td>
</tr>
<tr>
<td>Randy Alger</td>
<td>Alger Veterinary Clinic (Ohio)</td>
</tr>
<tr>
<td>Todd Alger</td>
<td>N.O.V.A., Inc (Ohio)</td>
</tr>
<tr>
<td>Dale Streams</td>
<td>Quakertown Veterinary Clinic (Pennsylvania)</td>
</tr>
<tr>
<td>Arlen Wilbers</td>
<td>Quakertown Veterinary Clinic (Pennsylvania)</td>
</tr>
<tr>
<td>Patrick Rodawold</td>
<td>Quakertown Veterinary Clinic (Pennsylvania)</td>
</tr>
<tr>
<td>Susie Lutz</td>
<td>Quakertown Veterinary Clinic (Pennsylvania)</td>
</tr>
<tr>
<td>Scott Nordstrom</td>
<td>Intervet Technical Services (Virginia)</td>
</tr>
</tbody>
</table>

* A total of 15 veterinarians attend each module. Those multi-person clinics participating as a practice send one veterinarian to each module.

For more information and a complete list of module topics, please visit the ODHMCP web site at [http://www.vet.ohio-state.edu/485.htm](http://www.vet.ohio-state.edu/485.htm)
Parasite Control Clinics

FAMACHA System

For years, sheep and goat producers have relied almost totally on the routine use of chemical dewormers for control of internal parasites. However, many producers are now facing a serious problem with parasites that are resistant to these chemicals. To help producers understand the issue and ways to manage parasites Dr. William Shulaw has been teaching producers at various Extension meetings throughout the state.

These Parasite Control Clinics are hands-on sessions where producers learn about parasite biology, resistance issues, and management strategies that they can use. Producers also receive training in the use of an eye color chart (FAMACHA) for determination of those animals to be treated.

The FAMACHA system uses a patented eye color chart to assist a producer in detecting anemia in the sheep. It is only useful for evaluating anemia produced by the voracious blood feeder, *Haemonchus contortus*. The color of the tissues surrounding the eye and inside of the eye-lid is compared on a 1-5 scale with 1 being desirable and 5 indicating anemia. It allows one to deworm only the most heavily parasitized animals thus leaving the worms in the remaining sheep unexposed to the dewormer. Research has indicated that selective deworming practices, such as this system, may prolong the useful life of dewormers. A management decision may be made to selectively deworm those animals with body condition scores less than three or FAMACHA scores of "3" or above in the interest of minimizing pasture contamination and reducing selection pressure for drug resistance while deworming the animals that need it most.

Dr. William Shulaw (DVM, OSU 1971; MS, OSU 1982) is a Professor and Extension Veterinarian, Cattle and Sheep. He joined the Department in 1984 following 13 years of private practice. He is a Diplomate of the American College of Veterinary Preventive Medicine and serves on the National Johne’s Working Group.
GRADUATE STUDENTS

News from the Graduate Program

Dr. Päivi Rajala-Schultz
Chair, Graduate Studies Committee

Six students graduated during Spring Quarter, 2005:

<table>
<thead>
<tr>
<th>NAME</th>
<th>DEG</th>
<th>ADVISOR</th>
<th>RESEARCH TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Dole, DVM</td>
<td>MS</td>
<td>Dr. Gordon</td>
<td>Prevalence of West Nile Virus in a Select Population of Big Brown Bats (Eptesicus Fuscus)</td>
</tr>
<tr>
<td>Cheyney Meadows, VMD</td>
<td>PhD</td>
<td>Dr. Rajala-Schultz</td>
<td>Evaluation of the effects of a contract breeding program on reproductive efficiency in Ohio dairy herds</td>
</tr>
<tr>
<td>Gretel Monreal</td>
<td>MS</td>
<td>Dr. Bergdall</td>
<td>From Pathophysiology to Therapy: Development of a Sheep Model of Chronic Heart Failure</td>
</tr>
<tr>
<td>Mickael Claudia Silva</td>
<td>PhD</td>
<td>Dr. Jackwood</td>
<td>Real-time RT-PCR analysis of two epitope regions encoded by the VP2 gene of infectious bursal disease virus</td>
</tr>
<tr>
<td>Katie Subler</td>
<td>MS</td>
<td>Dr. Jackwood</td>
<td>Analysis of infectious bursal disease virus-induced immunosuppression and Campylobacter jejuni colonization and shedding in chickens</td>
</tr>
<tr>
<td>Qiuhong Wang, MPH</td>
<td>PhD</td>
<td>Dr. Linda Saif</td>
<td>Detection and molecular characterization of porcine noroviruses and sapoviruses</td>
</tr>
</tbody>
</table>

Dr. Bob Dole is a Captain for the U.S. Army Veterinary Corps and will be stationed in Guam. Dr. Cheyney Meadows has accepted a position as Research Program Manager with Schering-Plough in New Jersey. Dr. Gretel Monreal will remain with the Department in pursuit of her PhD. Drs. Silva and Wang will become post doctoral researchers at the OARDC in Wooster. Ms. Katie Subler will be a veterinary student at North Carolina State University.

Caroline Barnum, DVM (advisor: Dr. Epperson), Olivia English, BS (advisor: Dr. Jackwood), and Jennifer Walker, DVM (advisor: Dr. DeGraves) will join the graduate program for Autumn Quarter.
Veterinary Public Health
Update

The Veterinary Public Health (VPH) Specialization towards the Master of Public Health (MPH) has had an excellent initial response. To date, 12 students have met the necessary requirements and have been admitted into the program, which will begin Fall quarter 2005. This inaugural group of students will be looking for practice placement experiences in veterinary public health areas for summer 2006. If you have opportunities for these students, please contact the program coordinator, Dr. Armando Hoet (hoet.1@osu.edu).

In addition to current students, several veterinarians in both public and private practice have shown interest in the VPH-MPH program. We are currently exploring with the School of Public Health the possibility to offering an executive version of the VPH specialization. Suggestions are welcome.

Additional good news related to the program is that the OSU Graduate School has officially recognized the VPH specialization on transcripts. This formal acknowledgment will provide our students with additional recognition of their specialization as they enter the job market.
Dr. William J. A. Saville has received the Pfizer Animal Health Award for Research Excellence. This award is presented to a faculty member in the College of Veterinary Medicine for his/her innovative research, on which the scientific advancement of the profession depends.

Dr. Saville has served as PI on funding of $1,242,402 for Equine Protozoal Myeloencephalitis (EPM) since 2000. He has published 36 papers (with 13 more currently in the review process) in refereed journals. In addition, he has published 8 book chapters and 60 abstracts or proceedings.

Dr. Saville is an Associate Professor and Extension Veterinarian, Epidemiology. He has been a faculty member in the Department since 1998. Prior to joining the Department, he was a Resident for Equine Medicine in the Veterinary Teaching Hospital and before that he was in private practice for 15 years in Alberta, Canada. Much of his research involves EPM and Sarcocystis neurona. His Extension work involves areas of public health outreach education such as the Applied Field Epidemiology Program and the West Nile Virus Workgroup.

Dr. Teresa Morishita, Professor and Extension Veterinarian was selected as a participant in the Summer Institute for Women in Higher Education Administration at Bryn Mawr, Pennsylvania from June 26 to July 22. She will represent The Ohio State University at this summer institute which offers women administrators and faculty intensive training in education administration. The curriculum will prepare participants to work with issues currently facing higher education, with emphasis on the growing diversity of the student body and the work force.

In addition, Dr. Teresa Morishita was elected to represent the College on The Ohio State University Faculty Senate and will be serving on the Senate’s Steering Committee and Faculty Hearings Committee.
Ohio LEAD Program
Dr. Amna El-tayeb, a Post Doctoral Researcher with Dr. Teresa Morishita, has been chosen as a participant in the LEAD Class XI. The Ohio Leadership Education and Development (LEAD) Program is a two-year program designed to develop future leaders in Ohio’s agricultural industry.

GRANTS / CONTRACTS

Monsanto Partners with OSU to Support Rural Practice Externships

Monsanto Dairy Business recently donated $5000.00 to the OSU College of Veterinary Medicine to fund externships for first and second year veterinary students. The goal of the externships is to provide an opportunity for veterinary students to experience rural practice and consider that option when they make a choice about where they want to work. The externships are directed to students early in their veterinary career so if they like the idea of working in a mixed practice they can choose electives that will help prepare them for that position. Monsanto has been working with the Ohio Dairy Veterinarians and faculty from OSU to develop these opportunities.

The program was developed by Drs. Hoblet, Sander, Epperson, and Meiring from the Department, and Dr. Mark Armfelt (OSU, 1977). The Selection Committee is pleased to announce they were able to fund externships for 15 veterinary students this year. They would like to thank the veterinarians in Ohio that have enthusiastically supported this effort and have provided the opportunities for students to have these experiences. It is the group's strong desire that the externship program grow in both sponsorship and participation in future years.

Dr. Mark Armfelt graduated from the College of Veterinary Medicine in 1977. In 1998, he completed the Michigan State University Dairy Health Management Certificate Program and achieved Board Certification in Dairy Practice. He worked in private practice in Martinsburg, Ohio prior to joining Monsanto Dairy Business. Dr. Armfelt currently is a Technical Services Specialist in Ohio and Western Pennsylvania. He is also president of the Ohio Dairy Veterinarians along with being a board member of the Ohio Dairy Industry Forum.
New Research Funding
(Since March, 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; Tom Wittum</td>
<td>Quantifying the Potential Association of Pathogen Load in Animals with Pathogen Load in Retail Meat Products</td>
<td>USDA: National Research Initiative Food Safety Coordinated Agricultural Project</td>
<td>$101,020</td>
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<tr>
<td>Drs. Hebers, Zhao, Keener, &amp; Morishita</td>
<td>Characterization and abatement of ammonia, particulate, pathogen, and odor emissions from egg production facilities</td>
<td>USDA-CSREES</td>
<td>$239,080</td>
</tr>
</tbody>
</table>

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.

- For more departmental information please visit our web site: http://www.vet.ohio-state.edu/preventivemedicine.htm
- View past issues in our newsletter archive: http://www.vet.ohio-state.edu/983.htm